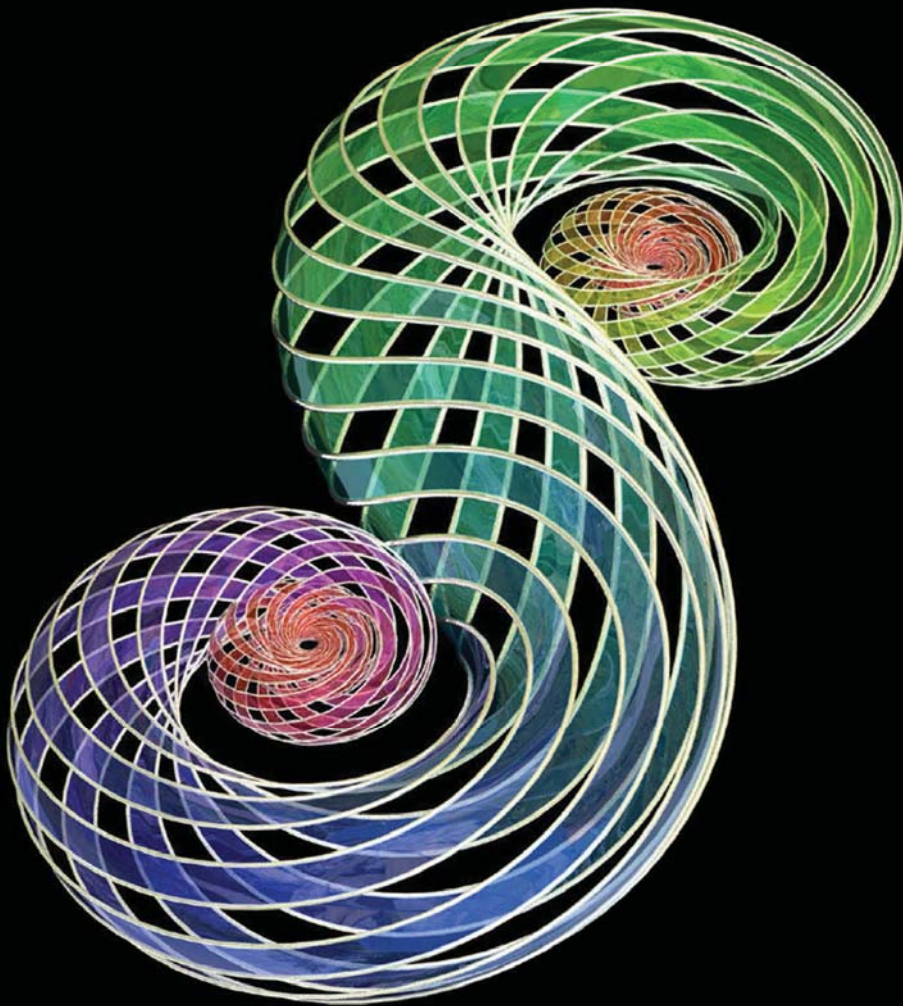


AETHER PHYSICS



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Aether Technology

Aether (Louis Boutard)

Louis Boutard (1880-1958) is one of the French genius that we studied and continue to appreciate. The good thing is that such genius makes it easier to understand the ideas of Schauburger, and vice versa. If you know only one of them, the ideas can be hard to understand, and disturbing compared to our little ideas of what the world is.

But as soon as you get ten or thirty such genius, their work, their understanding, and when you see that everything fit in a global unifying view, with the same strong understanding, although with different names and in different matters, then you are helped in your understanding of each one of them.

Boutard's principal discoveries are the origin of electricity, origin of magnetism. He was able to create life (not to transform it in a twisted and mischevious way, as genetic does). He created organic life (totally different from organic matter which is not living at all) from inorganic, by Aether conduction.

Summary of Experimental Works of M. Louis Boutard (1880-1958)

by

Armand Hatinguais

(1943)

1. Perpetual Generator, automatic and autonymous: --- A type of this fluidic generator functions perpetually in the modest laboratory of Mr. Louis Boutard. It reveals which is the mysterious nature of the work whose very complex electric fluxes are the admirable resultant, entirely different from material mechanics or chemical "work", bases equation T, false lemma which has as a consequence the ruin of all the erected scaffolding mathematism with forgery in the field of

the mystery up to now unknown, metaphysical, immaterial, of the electromagnetic immortal Life, whose logistic laws of indefinite multiplication, the great natural law, for which 2×2 does not make 4 but 400, are the reverse of the derivative mathematical laws of the geometrical and mechanical inert matter. By the complex requirements for the perpetual operation of this self-generating with 7 ways necessary of flow, which depends on immutable eternal principles, are peremptorily shown erroneous the ideas taught on the "voltage" and "amperage" and their current definitions, "quantity" and "intensity" from which nature distinct and the true causes are for the first in experiments detected time. The same demonstrations are made moreover by Mr. Boutard by means of very simple apparatuses, which consent without reducing the voltage of, and consent at will, or which reduces the voltage of without amperage.

2. Second generator which has the property, by special inductions, to multiply and amplify in a constant proportion the quantity and the intensity of the flows generated by the first generator, of which negligible is the initial power necessary and sufficient to produce induction: 22 milliamperes and 200 millivolts. By a continuation of induction successive in several apparatuses progressive in sizes and connected in series, one multiplies ad infinitum (and for the first time the historical origin of the mathematical sign of infinite is shown) quantity and intensity ("voltage" and "amperage"), of the continuous currents of the initial generator, without any alternation of ruptures and closings, on polar data showing the falseness of the "scientific" theories taught up to now, just as of those having currently course on impossibility of producing induction by D.C. current without ruptures of the primary current; induction by ruptures which gives remainder only one current to private "voltage" but "of amperage"; whereas multiplying generators and amplifying above at the same time generate "voltage" and "amperage", and this at will, historical origin of the differential and integral "fluxions".

Of course, this amplification is done exactly in the same way, under the same conditions, with a primary current having for origin the current mechanical "dynamoes", all badly conceived and all defective by the ignorance of the fateful shape of the Field of Force.

Demonstration models of this nature, of reduced size, were built by Mr. Louis Boutard during his work. It continued the construction and the assembly of these amplifying generators in industrial matter when the war deprived of the contest of the engineer who had assisted it for 15 years for the material technical preparation of components, specific and complex of this equipment. This one, affected at the Central Laboratory of Control of Manufacture of Armament, currently in Paris, could to take again its stopped collaboration, but one cannot correspond and the sending of the essential elements for the resumption of work is always impossible.

3. Dynamo of very reduced volume, very special form, according to the same immutable principles, on polar data entirely different from those known and erroneous, turning without resistance to the movement gyrotory, generators of several continuous, "voltages" and "amperage" electrical currents *ad libitum*, in their turn multipliable and amplifiables under the same conditions as those know-indicated, actuated by an unspecified driving mechanical force, or, well better, by the force of the D.C. current, multiplied and amplified, of self-generating initial.

4. Generating apparatuses of induction of sexual and cellular atoms (egg living primitive) vegetable and animal life, procreators of organic hypostases, identical to those of nature: reduce to starch, organic glucose, cellulose, acids, nucleines steatic and oleic, chromules colouring.

5. Apparatuses of induction of form quite as special, in the field of force of which birth takes, between electro-magnets of a particular design, monstrous protozoon, out of follicular bag rhopalic (in the shape of bludgeon), moving like a torpedo, Bi-sexual (androgynous), and reproducing ad infinitum, visible with the field of the microscope with the reduced enlargement of 300 diameters, whose study was undertaken by thirds apart from Mr. Boutard.

By the direct action of this herculean protozoon on alfalfa (*Stipa tenacissima*, L.), it assimilates the parenchymas to be nourished and reproduce, immersed in tanks. Mr. Boutard solved the problem, until there considered as insoluble of the integral insulation of cellular fibres (sclerenchymes) of this graminaceous. A tonnage of alfalfa was thus disintegrated and the oakum could be spun of it on industrial trades with jute without preliminary modifications.

This colossal infinitely small, which in water makes clear place of all the micro-organisms other than him, destroyed all victoriously that is pathogenic parasitism. By this rapid and summary enumeration, one sees that the cycle of work of Mr. Louis Boutard extends well since the origin from the automatic electrodynamic movement until that of the life.

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1921-09-23

French Patent # 591,115

Magnetic Energies

M. Louis BOUTARD

(2 April 1925)

When the magnetic bodies are studied, such as iron-soft, cast iron or steel, one realizes by the experiment that all these bodies not magnetized as a preliminary, freely suspended like are them pendulums or in the vertical, present naturally and invariably the two magnetic poles, southern and boreal, and whatever, consequently, their position compared to the degree magnetic of slope of the place, and their orientation compared to the plan of the magnetic meridian line of this same place. Their boreal pole is in top, and the south pole in bottom of the vertical of the body known as magnetic not thus magnetized considered according to a line zenith-nadir, as one can realize by means of the compass it. This position of the poles, southern and boreal, is always invariable, as one can show it while reversing suddenly, "the head in bottom", the magnetic fragment subjected to the experiment.

But if, instead of an unspecified body of form, one takes a disc of iron, steel or cast iron, and that one directs it in the plan of the magnetic meridian line of the place, parallel to him, one realizes that this intrinsic natural magnetization is the result of two components:

1. zenith-nadir,
2. North-South terrestrial, magnetic formant cross.

Only, the resultant of these two components is not, as one supposes it, a simple magnetic crossing, but well a chiasma of [*empiÃˆtement* - imposition] one on the other, so that pole boreal and south pole have their equatorial limit according to a diagonal forming an angle of almost 40° compared to the ideal line of equator; and which more is, with a maximum of intensity in impulse magnetic of the place, towards 65° compared to this ideal line of equator, as one can realize by means of the compasses it.

In the same way with a sphere. It is what must be for the Earth, spheroid mineral, not whole iron mass, but simply ferruginous; so that two points of its circles: boreal towards 75° , southern towards 72° , regarded wrongly as its magnetic poles, are actually the two ends of the magnetic diagonal line of maximum of intensity, that which follows, rigorous, the needle of the compass, which solicited by the magnetic flux to the maximum of intensity, moves there, parallel, by indicating the two extremes of this intensity, and not, as one believed, the line even of truths poles magnetic, which would coincide then with those of rotation.

The Earth is thus natural magnet, but nonfixed as is the tempered steel; because hardening as well as artificial magnetization cause coercive to bring back the magnetic bipolar limit to vicinity of the equator, and the maximum of intensity towards 45° .

The magnetic fragments subjected to the experiment are magnetized by the influence of the terrestrial spheroid, subjected itself to that of an immense universal magnetic cross which magnetizes it, like it magnetizes the worlds, of which it must be the axis; or are these magnetic fragments they subjected, just like the Earth itself, with the direct influence of this infinite magnetic cross? Only the experiment could show it which would be made in the southern hemisphere, where, in the case of influence by the Earth, the south pole of the magnetic fragment subjected to the experiment should be in the top, and its boreal pole in the bottom of its vertical.

At all events, like logical consequence any object of a magnetic matter like iron, having the shape of a cross or bracket with two branches in perfect balance, suspended like would be a pendulum, and turning freely under its point of suspension, is directed immediately and of itself, after oscillations, and without any artificial magnetization, according to the North-South direction. It is the same for an object in isosceles triangle, a disc or a ring, obeying the laws of gravity.

From this magnetic cross thus this idea rises: immense solenoid, magnetic endless screw, with immense layers of whorls, i.e. of tension, whose axis or central line would answer north south, its perpendicular, consisted the whorls of tension, joining the zenith-nadir (points "zenith", just like points "to nadir", merging ad infinitum).

Consequently, in order to reach separately at all these points of tension (bipolar and perpendicular) on the influenced fragment, it is not other form only the shape of the cone, for each of the two magnetic poles, in other words rhombe or cone doubles being opposed by the bases, or double pyramid, which, gyrante, is only a rhombe. And the experiment shows that it is well thus. All double steel cone or pyramid (or any object of a figure deriving either from the cone or pyramid gyrante, or of the rhombe to the rhombus), at the magnetized state, present, because of the conjugation of fluid components, a maximum of intensity to half the height of each cone, or half of its large ray ($H/2$ or $R/2$), and this, even at the static state. Moving dynamic, the two component magnetic forces must be put in tension, and their flows, variables of intensity, can be put in overpressure by means of steel points (themselves cones lengthened), fixed at various sections on the circumference of the rhombe or double pyramid. One sees consequently why the best magnets, in the shape of iron-with-horse (for example, of the machines of induction called magnetos), always end up demagnetizing oneself, the position of their poles being against the magnetic law, whereas a rhombe in suspension must remain magnetized for always.

Each one of these circles of points moving rotatory, with various sections on the circumference of the rhombe, thus generates flow and flux variation from one point to another on the same circle, with intensity different from a circle of points to the other circle of points.

If, now, one meditates "on the electromagnetic cross" of Oerstedt, one can conclude that one is in the presence of a bicoUPLE with quadrangular equation: energetically and also solicited by one and the other pole (positive and negative) of the electric force, the two magnetic poles (southern and boreal) of the magnetized needle, being made to balance, tend to remain in cross compared to the two electric poles: they are fixed mutually in this painful position of reciprocal energy tension in the reciprocal desire. From where it follows that if this bi- were uncoupled couples, by the abrupt suppression of one of the magnetic poles, the two electric forces would make effort at

the same time on the magnetic pole remained only, to link itself with him, by forming only one couples. What confirms the experiment.

That is to say thus, on the one hand, an electrical current continuous, and made circular by a solenoid; and, in addition, a steel rhombe or double pyramid strongly magnetized or excited towards

its line of equator by one or electric flux reel of density, provided with points sharp-edged with various sections from the one and the other cone or pyramid, and put in rotation being able to reach a high speed (by an unspecified engine) on a vertical shaft which holds it in suspension by an insulating ring or another device.

This rhombe in suspension, strongly magnetized, perfectly bipolar, will thus offer to all its circles of points, including those fixed at its polar tops, of the catches of unipolar flow to tensions different.

These circles of points thus show that one is in the presence of magnetic circuits whose circular whorls, encasing one in the other, form solenoids, or a solenoid with multiples layers of whorls or tension, magnetic endless screw whose flows are in whorls. From where points in whorls for all the catches of flow.

To collect this flow, unipolar and magnetic, with its different carrier rings, and to lead it in the electric circuit that it must intercept, the experiment shows us that the best, perhaps the single means, is a mercury tube (simple pipe of reed open to the one of its ends cut in nozzle-of-flute, and closed by a node at the other end, the other node-partitions of wood having been bored with the precondition) laid out obliquely in front of the rhombe; with such circle given, from which the bent points come to pass quickly moving rotatory, and to almost rub them, on the nozzle or nozzles of the small mercury tubes, which one sees levelling the small higher bubble. It is not necessary that these tubes are capillary tubes. The heavier the tube is, the better, seems T-it, take place taken and transport of flow which mercury channels. From where the relationship, already higher clarified, between gravity and the magnetic attraction in the gravitation.

Also one needs a heavy coherer which is a resistance to confluent triple of the electric fluids and flow or magnetic ray, a coherer through cohesion on intermolecular decoherence whose this fluidic triode takes force of cohesion, i.e. cohere.

This cohesion of the magnetic ray on the electric fluxes must always take place safe from the light: darkness, lunar clearness...

This cohesion, true cause first of sexual fecundation by the copulation of a couple, is a fecundation, where the magnetic impulse, true male force, fulfills its role of male, where impulse electric is the female, sterile force without this fecundation; and it produces in its state incipient a work of creative energy organic, which one can make act:

1. When the power is on in water;

2. When the current, in a gas or mixture like the air, forms a whistling arc or pole with pole of positive with the negative one oscillates.

I. Running in water. --- magnetic energy, by the mercury tube, must cross the current of the electric circuit, which it delays under the shock by making it whirl around the coherer attacked in the movement with the confluence of the three fluids, the such shelf in the movement with the confluence of three rivers.

Water is broken up into its two elements, whose oxygen goes towards the anode and gets clear, or oxidizes this anode when it is oxydable: aluminium, zinc or tin...; and hydrogen towards cathode. However if one feeds slowly from one of carbon dioxides: anhydride or oxide, coming from unspecified source, or incipient carbon that one can call smoking, giving the lampblack, combination takes place between these gases and hydrogen, and in the proportions of truths organic compound.

It is the same with gas for the soluble carbonates (potash, soda...), whose base, on oxide of the anode, gives an insoluble salt.

When solid resistance is a mass of iron-soft, organic substance generated, after passage to the light or the various rays: the infra-red one until the ultraviolet ray, can to be mucilage, gum, dextrin, glucose, starch or following starch:

1. That the catch of flow, on the magnetic boreal pole, is at the conical top or the base of the cone, the large circle of this base, or between them with an intermediate section;

2. That number of revolutions of the magnetic core, therefore the frequency of variation of its flow, is more or less fast; 3. That flow is more or less intense.

It is the same with the south pole (cone lower and reversed pyramidal rhombe), with this difference which the generated organic compounds go from the fatty acid until glycerin. To start the reactions, it is wise to employ a small quantity of sweetened water (dissolved glucose and levulose) mixed to the water-mother, or a dissolution of a carbonate (potash or weld, detergent of ash).

II. Running in a gaseous medium (air). - best is to employ, for the electric poles, a good oscillator with balls, adjustable at will, and charged by the armature of a reel with sufficient frequency, with the end of the small mercury tube placed between the balls, the whole fixed by fasteners on hard a coherer-resistance insulated (held perfectly in suspension by wire insulating or in some basket, below which or in which one can place a filter: skin, felt, etc).

The aerated water must fall drip on the magnetoelectric point of cohesion, whose coherer, range gradually, disaggregate slowly, giving birth, according to its physical nature and its chemical composition, with the natural organic substances of simplest with most complex, and according to the conditions know-indicated of polar catch of flow, of more or less of intensity, at the same time as speed and of magnetoelectric frequency.

It is cold which emerges, being able to go, according to the intensity of the power magnetic, until freezing in white frost water filtering drip, whereas electricity, destroying and thermics, produces only heat. It is thus well magnetic energy, energy $\hat{A}$ trice, which generates cold; it is thus cold, and not calories, which is released in creative work. What explains why the two magnetic poles of planets, like the Earth, are constantly frozen. What explains the release of the cold which results from the storm, being solved in rain, snow, hail and the lightning (flash with thunder) not being simply, as one believes it in the simple state of our current knowledge, a recombination of positive with the negative one of the electricity of the clouds, but a magnetoelectric triangular recohesion, reconstituting ether in his static state. What one can reproduce, in reduced proportions, with the oscillator and its tube of mercury, so the volume of the two balls and the power in dynes gives to equipment a powerful potential. The magnetic junction corresponds, indeed, so that one makes in mechanics when one unites the element "shock" with the element "speed"; the magnetic element is as a "water hammer" which one introduces into the element "speed" of the electric circuit: from where it results a force combined with the extraordinary effects. It is a very powerful brake, which, rubbing in the circuit, can turn off the engine.

And this "cold" coagulates, "takes in frost", such milk that one made there drip drop by drop. The coherers can be mineral (most various as well as most complex), plants (such as wood), animals (bone, horn, etc), giving to the magnetoelectric flow, which animate them or the life gives again to them, the infinite variety as well physical as chemical of the organic substances of the life. Because the life, all that saw, of the plant to the animal, is only one magnetoelectric ether emanation on rough matter. Because thus shapes magnetoelectric energy. One cannot think of enumerating them. To give idea of it, when this coherer is ferrous quartz with potash (potash silicate coloured by iron), it is a true chlorophyll which created, when one then exposes it to sunlight. When the coherer is a basaltic body, the generated organic substance is a homogeneous mixture of starch, of aleurone and gluten, true wholewheat flour, nitrogen of the atmospheric air being comparable each time the coherer contains calcium, and organic phosphorus seeming allotropic calcium under the double electric magneto influence and that of the light. According to the various coherers, it is thus of true vegetable saps, adapted with the various plants, their manures essentially, which one can procreate, and to provide to the vegetable life, where all occurs as during present experiments: underground and obscure work of the roots and seed in the mineral ground with work in the sheet in the light of the sky. When the coherer is an arsenical metal (metal arsenide), there are alive dyes with the inalterable color.

$H/2$ ou $R/2$ --- But then the southern and boreal magnetic fluxes generate the carbohydrates in general, the catch of flow to the maximum of intensity with $H/2$ or $2/R$ (lower cone of the rhombe) comes to fill the astonishment caused by the wonder than is a magnetized cone.

On a coherer like the slate-coloured schist (aluminous or argillaceous) two carbon dioxides are broken up, and their carbon linked with hydrogen, formant hydrocarbon, which in an incipient state, safe from the light, has an extreme power of destroying energy. In its medium, its contact, the sharp skin is pricked of blisters, no germ morbid cannot live, the bodies become imputrescibles. In the very near future, this penetrating force will give to therapeutic means without similar: that, inter alia, to destroy not only any gangrene, but still cancer accessible.

In the nontherapeutic order, the protective organic envelopes (parenchymas) of the plants such as the esparto, "*Stipa tenacissima* L", the sparte, "*Lygeum spartum* L", are entirely destroyed, leaving with naked vegetable fibre. Such a near future will show how can occur the illustrated leavens, the cellular germs, developing themselves by scissiparity, when the aerated water dripping on a hard coherer containing of zinc, of the iron and a little calcium, carried until incandescence, spreads the magnetoelectric sines (spores being whorls) in a sweetened dissolution, giving rise to the saccharomyces. But when coherer, under triple influences magnetoelectric with very high frequency enters in phosphorescence, and in incandescence giving heat and light pure, whose radiation can also be collected, led and to be made act in the adapted mediums, by mercury tubes posed like antennas with the front of the coherer, it is necessary to take well guard with the dangerous influence of these powerful rays on the mass brain, whose best guard seems well to be a helmet in rough skin of squales (dog-of-sea or shagreen), because of their silica as well biological as mineral.

Here thus recognized, returned with its author, whole powerful to provide, up to now ignored, that one allotted to forgery with electricity, half of the couple, whose sovereign role is with the other half, is with the generator: magnetic fluid, the absolute power or force paramount which dominates the universe and holds it in balance, that which sows the life! And here is recognized inanity of the theories of the science, which, melting general chemistry on the galvanic effects breaking up minerals electrically, although this one was without effect on the organic compounds, on a side concluded, without concern of logic, at the "electric state" of the bodies norganic as well as organic, this "electric state" or ionization having all to explain: vital phenomena and those of the raw materials; and other side affirmed, on the contrary, with an inconsistency not less disconcerting, than the all alone "chimism" could all explain, whereas all the chimism was founded on these galvanic effects! Theories without logic! Assumptions without bases! In what precedes, it acts of an electrical current external, taken with a source other than that of the rhombe pyramidal generator of magnetic energy. But it is clear that this rhombe pyramidal with the magnetic virtues discovered can be its own generator of electric flux density. The pyramidal angles, creating essential flux variation for the induction of a force known as electromotive, can be replaced by scratches or grooves, either in straight lines, or in curved lines, on the surface of the rhombe.

The armature will be thus a rolling up in arc, more or less obliquely around tilted and with more close to the rhombe, one of the ends of this arc which can be on a pole, and the other on another, but which can be also on a single pole, the difference in intensity fluid on the same polar cone creating the potential difference for induction known as electromotive.

With a rolling up solenoid, there is thus a D.C. current, circular, and more undulating, owing to the fact that the flow of the one and the other cone are with variable intensity of each polar top to the large circle of the base.

To increase the quantity of current, and to transform it into sharp force of intensity (voltage and amperage), by electro-electric induction, one will always employ the long cone which is the spindle, striated or smooth, right or bent, which has the same properties even in a static state, like magnetic core for rolling up, and rolling up solenoid, of primary education wire and secondary wire.

With an adapted rolling up, the natural magnetism of a sufficiently heavy steel rhombe, without another artificial magnetization, can be enough to create an electric armature, under the influence of which the intensity of the magnet will be excited of as much, until the limits of their mutual capacity, by mutual insurance company reciprocal induction, the magnet creating the current, which makes grow the loving one, which increases the current. **Summary:**I. Magnetic Energy :

With an adapted rolling up, the natural magnetism of a sufficiently heavy steel rhombe, without another artificial magnetization, can be enough to create an electric armature, under the influence of which the intensity of the magnet will be excited of as much, until the limits of their mutual capacity, by mutual insurance company reciprocal induction, the magnet creating the current, which makes grow the loving one, which increases the current. Summary. The invention-discovery, forming an inseparable whole, can be summarized as follows: I Magnetic energy:

1. Discovered of a magnetic power forming a component having a complex field with the defined rays, differently than by the vagueness of the expressions "masses magnetic", "magnetic flux", "magnetic field".
2. Suspension and vertical movement of the magnetic core.
3. Special properties, like magnetic, and inductive powers consequently, of the cones and pyramids, and figures derived: rhombe, spindle, rhombus, warhead or arc-of-vault, as well at the static state as moving dynamic.
4. To be able of the points, right-hand sides, curves, in spiral or propeller, for overpressure and collecting of flows.
5. Mercury tubes to collect flows as well as to lead them to the point of the conjunction out confluent triple of the triquÃtre or magnetoelectric delta.
6. Use and role of the coherers.
7. Role of the darkness, and that of the light, in this tri-cohesion.
8. Dripping of aerated water.
9. Role of gases of carbon, and incipient carbon, or any other gases, in the molecular organization of the organic substances generated by magnetoelectric fertile energy.

II. Electromotive Force of magnetic Induction :

1. Angles, scratches or grooves, giving magnetic core, flux variation.
2. Magnetoelectric induction on rolling up in arc, and solenoid.
3. Property of the rhombe lengthened in spindle, right or curve, striated or smooth, like magnetic core of the winding of rollings up, for electro-electric induction by primary education wire and

secondary wire, to increase the quantity of current, and to transform it into sharp force of intensity (voltage and amperage).

4. Solenoids of rollings up for these same windings. As for the applications they are of two kinds:

A. Physicomechanical: Consisting:

1. Out of apparatuses of orientation, similar to the compass in its various uses;
2. Out of magnetoelectric machines of induction, whatever can be, as for its mode, the magnetization of the inductive magnetic core.

B And physicochemical:

1. Organic productions, according to the data above: hydrocarbons; carbohydrate: glucose, starch, fatty acids; glycerin; nitrogenized bodies, vegetable dyes, latex or saps vegetative...
2. Reduction of the organic matter, like steeping of textiles (esparto, sparte, etc), or degreasing of greases, and the inorganic ones.

French Patent # 630,832
Magnetic Energies
(29 August)

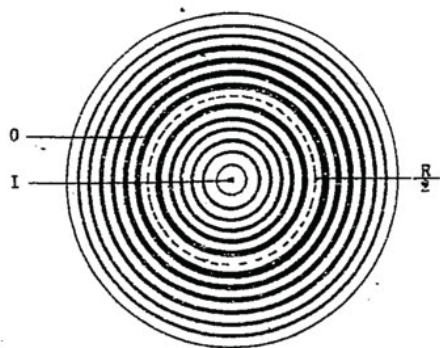


Fig. 1

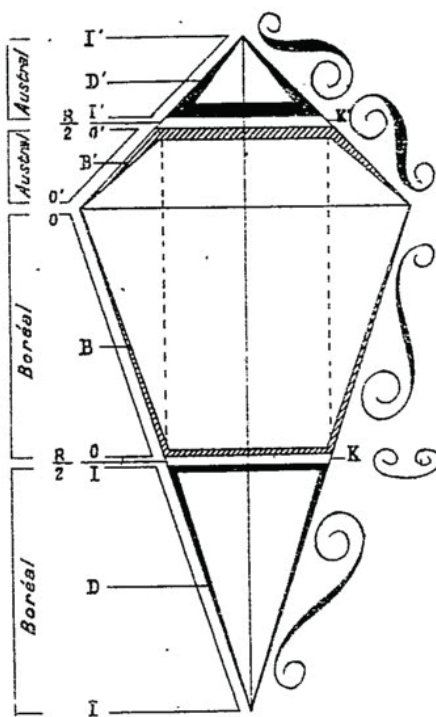
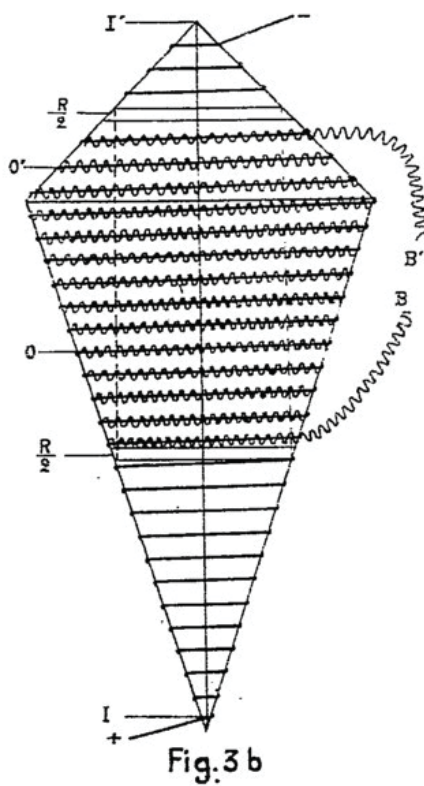
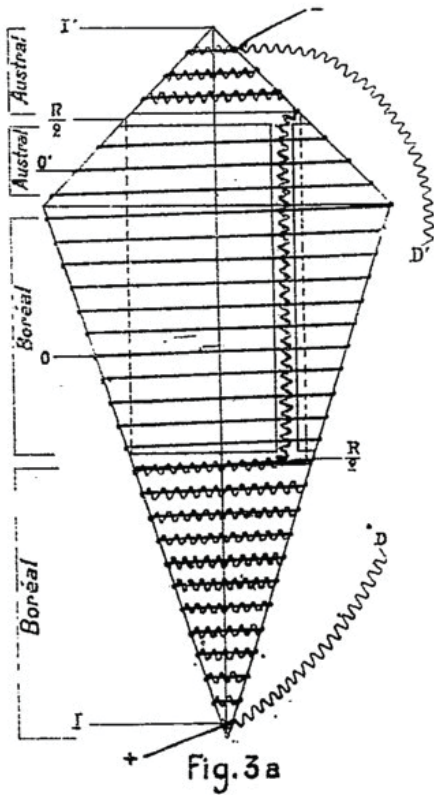


Fig. 2



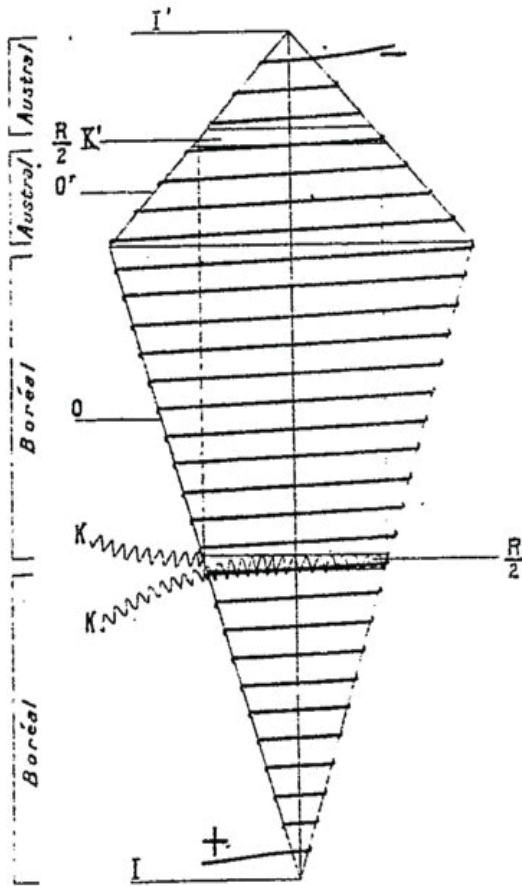


Fig. 4

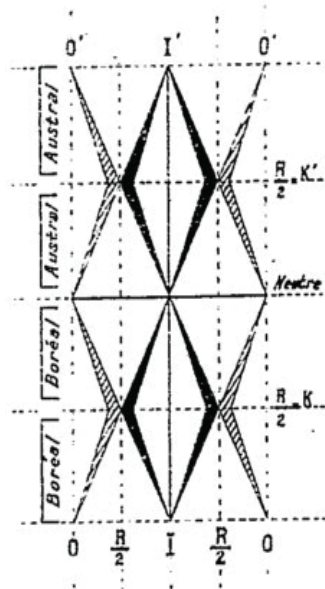


Fig. 5

Being given that a rhombe, or double cone at common base, of steel or iron, in the natural state also well that magnetized, rigorously presents a maximum of magnetic intensity at half of its large $R/2$ ray on each one of its two poles, and that its magnetic capacity is of as much more powerful than it presents stripes or scratches forming angles or of the asperities, it is followed from there that this metal rhombe is a catalyst of an external magnetic impulse which comes to shock or run up against, in vibratory tension, and marries the form of it, like it marries the shape of angular the iron hinge, freely suspended who without artificial magnetization no form cross or magnetic bracket and is directed itself with North-South magnetic.

What shows the following experiments:

1. When one runs a continuous electrical current in a discussion thread rolled up on a rhombe, either of metal, but of wood, whose cones opposed by the bases are very rigorously equal, one notes, by means of the compasses, which the intensity of the developed magnetic field is growing since the top of the nose bullet until $R/2$, then decreasing from $R/2$ to the largest diameter with the large circle of the base, boundary line between poles boreal and southern, where the impulse becomes null, - to grow again on the cone of exit, i.e. the other pole, until $R/2$, - these variations of intensity of the one and the other pole being made balance. There is thus equipollence, with two potentials, as well on the southern one as on the boreal one.

2. With a rolling up on another wood rhombe with two unequal cones: the large one having a height equalizes with triple of the radius of the large circle of the bases; the small one, a height equal to this large ray, whose top thus forms an angle of 90° , or lower than this large ray, the angle of top having beyond 90° , the separating line between poles boreal and southern is always with the large circle of the bases, but the magnetic intensity of $R/2$ on this small cone or pyramid gyrante is the double of that in $R/2$ on the large pyramid or large cone. There is thus rupture of balance between the variations of intensity of the one with the other pole. There is no more equipolarity.

3. It is the same, if the small cone is rounded in dome, cupola, warhead; with a wood rhombe having consequently the shape of a spinning top. The rupture of balance is accentuated more still.

4. If the wood rhombe is tiny room to a cone, like a shoe-with-whip, toy of the children, and that rolling up even continues in the field of the base, formant spiral as on a disc, the southern and boreal bipolarisation is always regular, with its separating line with the large circle of the base, and the maximum of intensity in $R/2$ of the spiral of this base.

5. If this wood cone grows hollow in funnel, consequently with the smallest cone returning in the large one, and that rolling up continues in the same direction inside this small cone, the southern and boreal bipolarisation is always to the large circle of the base, and the maximum of intensity with $R/2$ of the small cone of funnel. What shows well that this magnetic field is a solenoid:

layers
of magnetic whorls encasing concentric, of which a half, axipete, are in tension, under the vibratory effort, with other half, axifuge, rigorously with semi-ray: not fateful, with increasing of the center with $R/2$, and decreasing intensity of $R/2$ to the periphery, as the fig. 1 indicates it.

There are thus two southern flows and two boreal flows: an inflow, as well as a peripheral flow, southern and boreal, coupled and welded in $R/2$, being stretched as well in length as in width, in tension onto this circle under the influence of the shock, the clash and the revolving bump, with the whorls in contrary direction, than the form of the rhombe or rhomboide makes it possible to reach in all their layers, as very well an account of it the structure of onion gives. Otherwise to dir: magnetic Bi-couple in parallel welded in a neutral monade of impulse, which tends to be put in cross under the influence of the shock or vibratory movement.

If, in addition, on a spindle striated with soft iron or steel (double cone lengthened or curved while growing) one rolls up formant tablecloth a wire one of money fine and gilded with the pure

gold, whose ends are left free, and that on this tablecloth of whorls of gold wire one rolls an isolated copper wire (inductive), above which one superimposes several layers of another isolated wire much finer (induced wire), one note, with the passage of the inductive continuous electrical current, that with the rupture and closing the electric armatures occur normally. But if the two ends of the gold wire magnetic, or paramagnetic, were it finer than a hair, are connected on the ends of the copper wire stripped of the armature, with the rupture and closing of the primary circuit no armature passes more. No one "short-circuit" (deus ex machina of the "technicians"), because if one connects only one of the ends of the gold wire, of southern for example (and especially sheltered light, insulated in a rough wool, and preferably wire, crÃ¢pu, circumvented in volutes or making zigzags), even absence of induction. The gold tablecloth formed tablecloth of condensed flows, tank which simply runs out, by simple gravity, of R/2 to the point of southern, the upstream to the downstream, by the channel of the wire, sufficient potential, true potential, to create a current, without there being a circuit, because if all the rivers, with the potential of which one has habit to compare the electric potential, run out well indeed of the high level of upstream on the low level of downstream, one does not see them forming circuit, i.e. to go up with their source, their starting level, of another state: of their liquid state in a vaporous state, that is to say, in the final analysis, volatile, fluidic. From where it follows:

1. That a magnetic impulse can also be induced, like the electric impulse, on a magnetic or paramagnetic wire, as on copper electricity;
2. That it can be led, i.e. started, on one of these drivers, in parallel with iron, and in cross compared to the electrical currents: inductor and induced;
3. That it is opposed in the passing of the electrical current of the armature as soon as it comes into contact; that it is necessary, consequently, so that there is a locomotive electric armature, in other words running, to separate the armature or magnetic current from it. Consequently, if these fundamental conditions are met: 1. Decoupling of the magnetic Bi-couple at the R/2 point in the field solenoid developed by the vibratory shocks of an electrical current;

Consequently, if these fundamental conditions are met: 1. Decoupling of the magnetic Bi-couple at the R/2 point in the field solenoid developed by the vibratory shocks of an electrical current;

2. And rupture of balance between the variations of intensity of the one with the other pole; using a driver out of gold, or of any other paramagnetic body, each of the two fluids: axial and peripheral, will have to start themselves, and to form two currents. For the comprehension of this proposal, it is necessary to have presents at the memory the diagrammatic figure 2, of which here the legend: I and I' indicate the inflows: boreal and southern; O and O' indicate peripheral flows: boreal and southern;

K and K' indicate the flow of the R/2 circle at the point of coupling and uncoupling, welding and tension, the two bipolar magnetic fluxes. The volutes give the direction of the whirling of the fluids on themselves: largest overriding the small one. And as flows of contrary direction attract each other, one can at a glance see all the possible currents and their combinations.

Because of the rupture of balance between the variations of intensity of the one with the other pole, flows will be started of the pole the at greatest intensity towards the pole which develops weakest, it is with-statement of the small cone towards the large one, in other words of $R/2$ of the cupola of the rhombe or dome of the spinning top, which is properly the keystone, and whatever its polarization: southern or boreal. Experiment attentive showing that the induction or creation of rays and fluidic currents, to start with the electric one (rupture and closing, bringing together, distance, of a primary current), depends primarily and only of the shock or clash and the abrupt movement, one will thus take drivers, as well inductive as induced, as well electric as magnetic, having angles of shocks (not round wire and smooth), that they square or are striated, rough in a word, on the asperities of which the current jolts and is splashed, constantly, on all its course, in all the induction field.

That is to say thus an inductive electric driver: a large metal wire as the copper, striated with the precondition, for example helical, then offering the aspect of a screw, - or braid cowed of three striated wire, - different sections and metals or alloys different, if one wants. Then, for drivers of the magnetic armatures, a gold wire chain (gilded money, gold alloy and money, etc.) fixed on helical leather thin straps rolled up around the inductive electric driver, therefore oblique or in cross constantly with him. The unit, protected well by a wool whorl, which shelters and isolates the plank from gold, is then enroulé (dextrogyre for example: boreal with the entry of the current) on the wood of the spinning top being used as mould. The magnetic gold armature thus includes/understands three sections:

1. First section of I cut with $R/2$ with the circle of K;
2. Second section of cut I' with $R/2$ with the circle of K'. These two sections are connected one to the other by gallery or interior passage, with very the wood shape, below the circles K and K' (in the field consequently of the inflows I and I'), like show it exactly fig. 3a, forming circuit DD'.
3. Third going section of $R/2$ (circle K) with $R/2$ (K' circle), in the field of peripheral flows O and O', forming circuit BB' (fig. 3b). Finally in $R/2$, with the circle K of coupling, therefore of decoupling, consequently of energy effort, one can intercalate a ring or crowns magnetic, which will be induced of the third flow odd, alternative rupture of the welding of both others, but turning on itself, forming circuit KK' (fig. 4), which can be coupled with its identical on a ring K' K', if one removes BB'.

There are thus three circuits of three magnetic forces, whose fluids must always circulate under wool, hair or other of comparable nature, insulating magnetic, safe from any light.

The two ends of each one of these circuits come to plunge in the medium of test-tubes containing with water, like coherer and driver, a certain quantity of a body gross mineral: ordinary sand, marble fragments, etc, (according to the organic compound or only the effects which one wishes to obtain), with which one covers the magnetic seams.

When the apparatus functions, a quite weak electrical current (for example 2 volts) crossing the inductor, that it is continuous or alternate, is enough to make induce and to put moving the three magnetic fluxes, of which conducting chains, under the influence like invisible file, of which

soon iridescent (circuits II'), or blackened (removed the gilt from and oxidized money: circuit BB' and KK) on all the course of the contact with the coherer, which itself is filed and small-with-small mined, without release of heat, the axial II' releasing even a cold which can become intense until congelation, that of simply warming ring KK.

No one electrical current does not traverse these conduits, whose magnetic fluxes, true atoms, déjà endowed with will and desire, advance only slowly, of link in link. To measure them, an ordinary "voltmeter" would be enough, but whose drivers as well as rollings up would be made same wire as, pareillement insulated above. All that precedes, for the clearness and the simplicity of the exposure. But like flows of II' and OO' of this Bi-couple are both perfectly bipolar, with a variation of intensity, increasing and decreasing, or double potential, on one and the other pole, as one mentioned above, and saw with the fig. 2, they can duplicate oneself, producing four currents:

1. Running D of I;
2. Current of I';
3. Running B of O;
4. Running B' de O';

What, with that odd KK', thus produces five currents. There are thus five dynamic, creative powers of any organic life, three forces first, of which two are double while being bipolar, of which the odd third, neutral and, is the union of both others. It is easy to see that it is in $R/2$, with the carrier ring K and K', that this product, resulting from the work of magnetic energy, any ray or current of electric power, which is nothing in oneself, only the effect of the tension of the two plain magnetic forces in a third: the monade of the Aether.

And, indeed, if on these wood rhombes one rolls up an electric armature of genuine silver wire, parallel with the large inductive wire of which it follows rolling up, in inside or apart from the helicoid rolling up of conducting plank of gold wire of fluids BB' of OO', it induces (that the primary current is continuous or not) two continuous electrical currents, which accompany in cross the currents magnetic B and B' their setters moving: one on each pole; respectively leaving the circles even K and K' to the large basic circle commune, neutral line where are neutralized the two induced ones going to the meeting, of which one in the direction, and the other with misconception of the inductive electrical current, - where it is thus necessary to cut the discussion thread of the armatures, magnetic as well as electric, to make two circuits of them: one on the south pole, the other on the boreal one of BB' or O', and answering not positive and negative of the common and ambiguous names of the electrical current, but well the one and the other of the electricities (resinous and glazed) noted in statics, having each one their clean positive and clean negative: level of upstream, level of downstream, which makes their potential, - and answering consequently the two reverse currents of rupture and closing of the ordinary reels of induction.

The variations of intensity of two dynamic flows creating the potentials can thus be still appeared in a way seizing by the diagram of the fig. 5, formant network of rhombuses, forms vibration. The same laws applying (same effects of the same causes) to any generation of magnetoelectric energy, it is followed from there that to have a pile of indefinite and "impolarizable" use, it is

enough to roll up on a shoe-with-whip, like that of the children, a narrow zinc tape bored as a preliminary like a grater of kitchen of a multitude of small holes to burs, and in which one welds a multitude of very small points of pins or trucks (out of galvanized brass, money gilded, etc), bent hook to the bottom, starting from the R/2 circle until that of the large diameter.

Plunged in water in a terra cotta vase, with at the bottom a little of lime, conducting electric, which dissolves, this pile even functions at the moment, and without worsening.

At the conducting counter, of which they marry the form, monades magnetodynamic Bi-couple come to grate and break. By the points which run out it one of the magnetic fluxes is launched (B or B' of O-O'), involving transversely the electric power of tension and rupture of the Bi-couple: the impulse is given, the movement is created, to stop more, - only stops at the beginning, and in road the contact, of the slow magnetic flux which hesitates being opposed to the movement, and consequently with electric movement, of which it causes only the stop, known as "polarization", like the actuation. Once launched this magnetic impulse, it thus should be drawn aside, to cancel it, on a body gross heavy, more heavy that the lime of water, conducting electric: rough wall of the vase, swell frosted of ground cooked, insoluble clay mass with the lime of the bottom, etc. - One can collect it also perfectly in circuit using two small tubes (wood, glass, pottery) containing a little mercury that one puts in contact with similar drivers at those described. - other flows could be launched and also led, by means of other points on the remainder of the narrow zinc band perforated. On carbon dioxides they can produce in water, with the coherers, the same bodies organics which can organize same flows of large the rhombe striated, out of magnetized steel, armed with points, low frequency turning, by the geminated mercury tubes which collect and channel, with return of each period, the flow of the flow of the points moving rotatory, - while with high frequency organize by II' the bodies with soft savour, by OO' those with acid savour. Tubes of mercury, with the short-nap cloth of the points of the generating steel rhombe of magnetoelectric induction, which fulfill the same role as the planks of conducting gold wire with the rhombe of wood, gauge of the electromagnetic induction which has been just described, the effects are identical, except however that with the generating steel rhombe the catches of flow by the channel of the points can be infinitely varied, these points being able to fix itself at all points of the circular tension.

With the pile, where the frequency is weak, the whole of great flows II' and OO', while recombining, product a gommeuse water. So that these small piles, of which the running water, renewed drop-with drip, runs out of them drip by a conduit safe from the light, provide to the plants an incomparable sap, organic principles of the life.

Summary.

The invention is thus the discovery of the law which governs the origin of the rays and currents fluidic, law single: shock, clash, bump, - for the setting in tension, as well in the air as in the vacuum,

of two forces dynamo-magnetic bipolar, coupled in Bi-couple, in parallel linked, very closely welded in an odd third, neutral and, constituting the monade $\tilde{A}\ddagger$ ther, which vibrates and is put in cross under the influence of the shock, the force in cross which was put transversely (and, therefore, across rays and electrical currents) being opposed in effort dynamic energy to the

movement of disunion from which two rays or opposed currents result from electric power, which are nothing by themselves that effects of the tension of the two forces of the aether, which contains in power them seven forces first five magnetic powers, two electric outputs.

Without magnetic movement, not of electric movement; no electricity without the cross magnetic or its tension solenoid, which by the rhomboide one reaches all the whorls, allowing to divide, release one of the other, with the fateful circle $R/2$, two paramount dynamic forces what attracts gravity, of which they seem the cause, - like separating them by their unfoldings, safe from the light, in five forces isolated having each one separately from the virtues different, as well mechanical as physical and chemical (inorganic and organic), finally biological, and different also for only one and even force according to its potential in tension and frequency; five dynamo-magnetic currents whose slowness gains in power what a current electric consumes in pure speed.

What implies the conditions of bodies and organizations material hereafter, like parts essential integral rising from this discovery:

1. Cross or bracket with offices of compass;
2. Rhomboids, as well like magnetoelectric generators, as like form-gauges rollings up of magnetoelectric induction as well as electromagnetic, similar to those described:
 - a. As generators of rays or magnetodynamic currents;
 - b. And multipliers ("boosters") of electrical currents: alternate or continuous;
 - c. Switches or rectifiers the alternate ones continuously;
 - d. Transformers in sharp force of intensity ("ampfliers"); That they are of metal, wood, shoed wood or any other matter, full or hollow, with or without galleries or interior passages, angular, round-offs, striated or smooth; that they are rhombes perfect or only rhomboides or conical, sections and segments of rhomboids or only of conoids, twin cones equal and unequal or trunk-of-cones opposed by tops, - in a word derived from the wonder which is the form cone or pyramid gyrate, pointing out the pear shape, fig, fruit of the ancient lotus (polygonic trunk-of-pyramid), fruit of water lily (rhopalon of old, fruit dedicated to Hercules, and true name of its "bludgeon"), egg finally, egg orphic, egg first of "Vita ex ovo", - as spinning top, shoe, rammer or leaf-of-bell, right spindle or growing;
3. Scratches or grooves of the drivers, as well inductive as induced, as well magnetic that electric, that they are round, square or polygons, woven, with a grid, braided, in lattice, in strands, or flattened out of blades, ribbons or sheets corrugated, crimped or stamped, in let us galons, embroideries or passementeries, - that these scratches are side or longitudinal, in straight lines or sinuses, or turning helical, or simply reduced to asperities, generating in a word of the reliefs or the rough touch, - and this, even for equipment of the magnetoelectric or electromagnetic energy currently in use;

4. Paramagnetic or diamagnetic bodies for the induction and the control of the rays and magnetic currents, as well as the construction of their measuring instruments, such as gold, platinizes, mercury, - gilded money, alloy of gold and money, tin and gold, etc, - heavy metals in general, appearing to exceed specific gravity of zinc;

5. Leathers, skins and parchments; wools, hairs, hair, hairs, sleeping bag of feathers, mixed or not packings, crudes, spun, woven, draped or knitted, like insulators of flows and currents magnetic;

6. Driver-coherers: minerals, plants, animals, such as marble, silica, schist slated, arsenous iron, etc, which one cannot enumerate considering their infinity, each one of them requiring a very complete study as for their inorganic decoherence by the magnetolyse or by an magneto-electrolysis by means of the seven magnetoelectric forces, that is to say separated, that is to say in couplings, - and as for their own role in the syntheses procreative of substances and organic matter, under the same conditions, with all degrees either of tension, or of frequency;

7. Right or curved points, grooved or not, with cylindrical propeller or propeller conoide; 8. Piles of zinc, cadmium, or any other conducting metal magnetic, helical rhomboide, conoide, etc, perforated like a grater, and provided with small points, right-hand sides or curves, of magnetoelectric use, with conducting limes or other bodies electric, and clay, raw or cooked masses, or other swell heavy, for flows magnetic;

For the applications in general of the five magnetodynamic forces either only, or combined between them, or of the five forces with the electric forces, with any work energetics; Maybe of a mechanical nature: like driving energies overcoming the inertia; Of a physical nature: phosphorescent light and light without heat, freezing cold, sovereign therapeutic treatments, etc; Finally of a chemical nature: in analyses and syntheses, reduction of the matters so much organic that inorganic, finally procreation of the organic substances of the life.

Louis Boutard, Chemin des Trembles, Telemly. Alger

1st Addition to French Patent # 630,832
NÂ° 33.826
Magnetic Energies
(Perfectionnement au brevet nÂ°591.115, Nov. 12, 1924.)
(28 August 1928)

Preceding French patents # 591,115 of November 12, 1924 and # 630,832 of November 12 1925 showed that the magnetic field of force is consisted the monade Aether (monade only or in an infinite number) put in breaking stress by the shock, the clash or the abrupt one movement, apart from any ascribable efficient intrinsic cause with metals or other bodies known as magnetic, showing a component or duel of opposed fluidic forces, also bi- polar, which tends to be put in cross, formant solenoid, of which the rhomboid-solenoid of one narrow zinc band, holding place of "pile", conduit with the same demonstrations, as it supplements entirely, revealing all the complex mystery of the field of force, with the consequences which in are the corollary.

The point criticizes welding, therefore of rupture, the two opposite fluid forces in their duel magnetic is very exactly with the $R/2$ circle in the past illustrated out of cut by the diagram qoppa Q, become the letter Q (removed alphabet cadmen by religious scruple, like too clearly figurative); in plan by diagrammatic sign pi (P), become the letter P, according to fig. 1. This critical point being the original source of the electric effect by magnetic tension, it is enough for to cause this rupture by tension of each monade, producing an electric effect, to arm with small points eighth notes, conducting magnetic, two carrier rings, southern and boreal, at the point critical $R/2$.

The monades, hung without stop on the crowns southern and boreal, are broken by the shock and separate in atoms from two kinds: ones pertaining to the axis, - others, with the periphery, - in even time that an electrical current is produced, passing on copper wire as in the others "piles".

However, if one puts outstanding under this "pile" soleno-rhomboid a mineral heavy lorry, which is not not metal, such as a nonporous stone, one notes the passage of a greater quantity of electricity.

The flow of the axis, according to the attraction of the weight, precipitated there of itself, constituting the heavy atom broken monade, in the pure water of the large terra cotta vase where this

"pile" is plunged. And, in effect, one can there collect it by putting in contact with this heavy stone the least weight of mercury at the bottom of a tube of glass, in which a driver goes down from

fine gold or simply of gilded money, insulated under wool, that this driver is gold a formed continuous wire chain, or on the contrary discontinuous, forming like a chain of button or gold dusts in money wire gilded, on hair or wool yarn.

At the other end of this driver, plunging out of pure water test-tube, and without there being "circuit" nor "closing" unspecified, these heavy atoms arrive slowly by jumps, formant a bunch of bubbles (oxygen and hydrogen of the analysis of water) on the noble metal, on which the carbon of oxide and carbon dioxide is reduced, making iridescent until the black the brilliance of metal.

This reduction is faster still if the test-tube contains lime water instead of pure water, - lime playing the part of constant supplier in these carbon dioxides drawn from the atmosphere. For debarasser of lime, there is to only filter drop by drop on very fine sand and in layer enough dense. What is known as once and for all.

At the same time, peripheral flow, released light atom of the heavy atom, are assembled by the pores, while jumping, to the edge of the high terra cotta vase where one can collect it by another metal driver different and less heavy than that know-described (brass, bronzes tin or bronzes of aluminium), discontinuous or continuous, under the same conditions as that of the flow of axis.

One can still detect it on the edge even vase, where one makes drain one or two nails of iron soft, soaked as a preliminary until oxidation to the surface of the water of the vase of "pile".

Under the influence of flow, all the edge thus touched passes slowly to the red crimson: high-carbon dye that one can collect when it is desiccated. If the key of oxide is made outside with below edge of the vase, the high-carbon dye which occurs is yellow of gold, - colour which degrade until the pale yellow as one descends the keys on the level from the crown lower of the "pile", only provided with this one.

Same results if one puts the driver on a collar of stoppers (cork oak, wood-of-ivy, etc.) floating on the surface on the circumference of the vase. Same results still, if this driver connects on a crown of sticks of cane well dry, *Faerula communis* L, posed as in cornice on the high edge of the vase, without contact with water. What explains why, in the Mediterranean countries, one puts at the neck she-cats out of milk of which one drowns the kittens, and which die quickly if one leaves them none of it nurse, small collar of stoppers: who attract and stop in the passing, of the cerebral sines to the ganglia mammaires, by the flow of the hairs, peripheral flow light, creative, with the costs of the glycoses, lactic nucleines, as it will be shown in addition. From where the Latin name of cork: *saber*, literally "with udder". And no she-cat dies, in spite of the "scientific" smiles. What explains in the same way astonishing it phenomenon by oxidizing catalysis due to porous platinum, and only in this porous or divided state (foam or sponge). On attractive metal, more eminently conducting magnetic, the Aetheric multitude of the monades comes to run up, in tension vibratory. On platinum sponge which blackens, peripheral flow piles up, untiring and ceaseless generator of the organic acids. The astonishing phenomenon is thus only magnetic, it platinize acting "only by its only presence", like other metals in any magnetic field.

The difference in weight between the heavy stone and light porous wood thus facilitated quartering and separation in its two atomic elements of the monade dislocated by the clash on the point.

From where the name of Atom = section of Alpha, letter A being the diagrammatic sign of the monade of ether in rupture by tension, as the history of this erudite letter shows it, - and not "indivisible", misconception and nonsense, impossible fiction which one is astonished to see taken as material base by certain scientifism. What reveals the nature of the monades: an inflow and bipolar, which suddenly released of a peripheral flow which wraps it around, precipitates in vertical circles axipetes, in fall accelerated towards a point known as to nadir, word-with-word "of that which descends ", the Berber one, borrowed by Arabic, *ader*: to go in bottom, to go down, - whereas flow peripheral, also bipolar, goes up in circles axifuges towards the point says zenith, literally "with released", of Berber, borrowed by Arabic, via Spanish: *c-Ã©nit* (with the accent on the first syllable). From where the balance of the monade in a neutral state in the ocean of monades, called "vacuum" that is the Ether ocean, - the imponderable zenith force making just balance with the nadiral ponderable force, which it holds in suspension until the shock of rupture. For this reason, it is rolling up in funnel which is necessarily the best. It is form *c?ur*, which is thus obligatory to perpetuate the movement.

The electric flow being always better if one inserts the coal of electrode below bottom of the "pile", close to the suspended stone, it follows that this fluidic current, simple effect of the magnetic tension with its and shackle $R/2$ uncoupling or qoppa-pi (QP), the fate of this ring

follows, which is the cause of this effect of tension; and that, consequently, this flow of the ring of rupture even follows the law of the axis, that of gravity; it melts towards nadir it, in dextrogyre movement.

It results from it that the diagram 2a, showing:

1. Decoupling, in side tension, releasing them one of the other, two flows magnetic of the axis and the periphery;

2. Respective unfolding, by tension of longitude, into boreal and southern, of each one of these two uncoupled flows, becoming unipolar: I-O and I' -O'; Is reduced, in the normal case of the two flows uncoupled by report/ratio one with the other, but not duplicated polairement, with the fig. 2b. So that, the movement of southern overriding that of both others:

1. The flow of axis, bipolar, I', tiny room with a movement: that of left on the right (direction of needles of a watch); is dextrorotary;

2. That of periphery, also bipolar, O', tiny room with a movement: that of right-hand side with left (contrary direction of the needles of the watch), is laevorotary. (the double "cross of Lorraine", with unequal cross-pieces, reduced to a "simple cross".) Without having this figure always present at the memory, it is useless to undertake a scientific study. However the experiment shows that if the electric flow follows the fate of its ring of rupture, which follows the law of the axis, that of gravity moving dextrogyre, this electric flow to neutralize it the inflow and nadiral can never reach, which can consequently to accumulate, concomitant and without relaxation, at the same time as the electric fluid, on same heavy body, electric driver: of metal for example. What is applied, but without that one knows why, in the field of force which is the "accumulator".

But if this known as heavy body is other than a conducting metal, or if there does not exist, fluid of tension electric always tends to follow in its walk and until in its movement the other zenith flow of the periphery, which, very slow, is always let reach. And for this reason a current electric (to currently preserve this denomination of use, although it is extremely vague) be accompanied, and always, in more or less large proportion, of the zenith impulse of the periphery.

One can easily see it by means of an old ordinary "pile", of which the "porous one" out of use, does not stop any more for chemical work of "salt", known as "depolarizing", peripheral flow light, which leaps in the electrical current that it tends to cancel, and whose sudden starts violent one are if abrupt and rapids that the needle of the "voltmeter" starts in disordered jumps, like c? ur of a patient reached of fever. It is thus well him it "driving" of famous "climbing salts" which go up by coals, cross the edge of the vases of pile not coated with paraffin, to follow it obstinately "running", - tending to cancel it, at least seemingly, but more exactly to modify it.

The obviousness is the same one if with this old "pile" or that described above, one connects the positive one, even without completing, on a rhombe of induction previously described. That the driver of copper, inductive electric, that is to say continuous or even discontinuous, magnetic

induction on each one sections, discontinuous or continuous, occurs normally. It follows from there that in fact magnetic fluids lead the flow of their tension electric.

Consequently, in any field of magnetic force, the largest diameter of a heavy lorry (like iron, for example, for powerful effects) the limit of the magnetic axis determines, of which flow is absorbed by the weight of this mass even, angular surface constituting the wall on which occurs the vibratory tension, if one rolls up it of a light coating, and especially porous: sapwood, terra cotta, dry bones, - which will absorb the peripheral flow, of which it will delimit it ray. True wood corner beside a corner of iron, and an equal power, which doubles exactly tension load, completing the easy total disjunction of the two forces of $\vec{A}$ †ther in the interval left between the axis weighing and the light entourage. Simple steel rifle in a tube of reed.

Application to the "rectification" of an alternating called electrical current. Such a current comprises really different sections turning in opposite direction, of which ones (laevogyres, on the southern one) the others with the trailer trail (boreal, dextrogyre) waited until the latter cannot become transportable steam-engines that when put themselves them-even goes from there, in translatory movement, them electric sections of southern with the movement laevogyre. The fig. 3 indicates the diagram of it.

One can either rectify it just as it is, or to fork it by duplicating his copper driver. "To rectify" wants to thus say to print a movement of direction, and of the same direction. By one fatal need, this direction must be laevogyre, because it is bipolar flow laevogyre of periphery which, through wood of the dry tube of reed, escaping from the influence from the ring electric of the field of force created, will clutch in the passing the inductive electrical current to rectify, he printing single sound direction moving laevogyre. What is effectively facilitated if the wire of the inductor and current to be rectified, in the way of the field of force, is also conductive magnetic zenith, i.e. if it contains, for example, zinc, tin, aluminium, are in layer thin, that is to say out of alloy.

In fact thus the currents to be rectified are the creators of the rectifying field of force. The rolling up of brass, under permeable envelope with the magnetic impulse (flax, hemp, etc), is done thus sinistrorse on the cane of reed, starting with the lower end, point entrance of the current, where creates for itself southern. The cane must be vertical, in order to facilitate the continual flow of the axial one with nadir by the bottom of the rifle sharpened at a peak fine. On the diagram $n\hat{A}^{\circ}4$, the field winding with to rectify is carried intentionally beside the field of force of the tube (instead of being rolled up around) in order to to better do to seize the detail from what occurs.

The energy effort of the Bi-magnetic tension, in the vacuum left between wood and steel, creates there an electric ring without exit, resistance which is transformed into heat, - effect projector comparable with that of the wheel block made up on a wheel by a sole or shoe of wood on the iron of the rim. This heat, which can be very intense, according to the intensity of the field, being able to harm the hardening of used rifle, it is necessary to make it cure by itself its evil, making absorb by two layers of insulators: soften soot in a little linseed oil on steel rifle, powders gums and resins with linseed oil filling the interval. Thus as of that heat rises, the resins, which absorb it, tend to melt out of varnish, and soot acts as cement.

It is not other thing which currently occurs in the "rectifiers" of use, just as in the "coherers" for the waves known as "hertzian" (tube with iron filings, fragment of crystal, gum-gelatines, etc), which are not, it is seen, who "rectifiers" of current. - In mercury the bulb, the current to be rectified, instead of being external (as it could as well the being on a wickered bulb) penetrates inside, on mercury vapor, creating a field there of force, whose axial one is disjoined by the attraction of mercury where it precipitates, followed, but without effect neutralizing, by the electric circular ring of the field of force, under the influence of which start to whirl mercury moving dextrogyre, resulting heat consuming itself with to evaporate, - while the light peripheral flow, attracted by glass of the bulb and the light one vapor of vaporous mercury, seizes with violence the primary current to rectify, i.e. to direct, and involves it in its director-conducting waltz laevogyre.

This hollow cane with sword, which is not other than the Hellenic and mythical *dolĀ'n*, like the "reed of Isis ", is not thus, in reduction, that" religious fascis the "of FlĀçmen dialis, then more late, by plagiarism, of the political Lictor: chop magnetic steel narrowly wrapped bits of sapwood, very intertwined conducting strips, fasciae, peripheral light flow drawn aside by the other axe of wood which is the fascine of wicker, faggot fascinator. Marvellous apparatus, which is not only the symbol, but the ideal body of the absolute disunion.

But the circular electric ring of the field of force created, consumed to no purpose while creating heat, can be collected in other words induced, and to enter in translatory movement (movement transportable steam-engine), provided that it is led, because it can y have flow electric only if there is magnetic flow, and electric flow in a definite direction that if there is at the same time magnetic flow travelling obliquely with the other, which it involves and which it guides.

Amplified apparatus. - Is a steel pivot, always with sharp angles or wall striated, pointed with both ends, for the access on the circular lathes of the bipolar axis magnetic, - and bent in arc, in the only goal to increase the tension, as well side as longitudinal, by avoiding the mutual affinity of two axial southern and boreal, with the reciprocal desire. The electric inductor which is rolled up around in a propeller dextorse, large pure copper wire, will carry three sections of helical rolled up magnetic drivers to the entour of itself, but without contact none:

1. A section sinistre, for the boreal point; 2. Section dextro, on the wall of decouplement which constitutes the steel pivot in sound larger diameter; 3. And a third, dextro, for the point of the southern one. The armature, at the same time magnetoelectric, is composed of a genuine silver wire (no copper) and striated helical, around whose helical sinistrorse is rolled up, but without any contact, the driver of the armature magnetic light peripheral, trainer of the electric armature.

These various drivers of the magnetic armatures are narrow leather bands carrying and insulating one chain stopped, discontinuous, either points eighth notes, or of metal granules (buttons or pearls), angular or striated, with nature different, so different weights, for each impulse of the axis and of the periphery and their ring of couples: a. Gold, gilded money, alloy hooks of gold and a fifth of money, amalgam of mercury with gold or money, etc, or granules identical, for the bands of axial and of slip-circle on the circumference of pi (P), on which iron granules or hooks

could be employed; B Hooks of brass, bronze, copper-aluminium, in granules (hollow pearls) identical, for the bands of the impulse on the periphery.

Indeed, if these conducting chains are without interruption, forming continuous line, the flow electric of the field of force created there the impulses continue: on the circumference of qoppa-pi (QP) the alternate one of the rupture which is cause of the electric effect; and in the armature on the periphery it zenith light, - and nothing passes by the wire of the electric armature.

The progression by jumps of the magnetic atoms can be better compared than with the same jumps vibratory of the escarbot-grasshopper (kind "Elater"), still named taupin, and also blacksmith marshal, because of the small vibratory noise that it produces while jumping, precisely compared with that of hammer on the anvil, "somersaults" good studied and described well by the naturalists. Over the rolled up inductor of left on the right, its magnetoelectric armature, laid out like aforesaid, is rolled up of right-hand side on the left, the two free points boreal and southern remainder.

Lastly, the unit is intertwined by a wickering or rolling up as tight as possible of long bits and flexible devices, of which the best (apart from the wicker, of the garou or saint-wood, Daphne conidium L, of young growths of fig tree, etc, for beams with great power) can be most varied; Gramon-of-mountain, Smilax will aspera L; Fragon, Ruscus aculeatus L; Viorne, Clematis vitalba L, etc. The details of each part of this equipment are given by the fig. 5. They are not different, moreover, except the vertical order, that those given by the second left-hand column of large panel with four columns whose semantic signs explain rollings up of the four arcs who surround in collars the high collar striated with divine "the Ram" with force, of the inductive "Ram", of which the rotatory movement of neck is admirably returned by the powerful artist who engraved this appearance of wonder on the granite wall of the large temple of Ammon, like reproduces it the stereotype which accompany the fig. 5. - (As for the semantic signs of the three other columns, which speak by themselves, they are now quite easy to include/understand. Explained in detail, realized by the experiment, they will be revealed at the convenient period, when the key is given, from now on discovered, of the diagrammatic signs which are the alphabet even of the universal ritual language known under the traditional name of Kuriologique language, stock of our profane languages and theirs signs of writing or letters alphabetical).

It is thus well the side tension, the stretching in width, which is fundamental. Because it is it which cause the scission, at the critical point and capital R/2, and the open opening of the field of force of $\tilde{A}^+$ ther, producing the electric double effect. It is still the tension which causes the stretching between each circle of the magnetic flow of axis, just as between each circle of peripheral flow, producing qualified effects "parasitic", all taken for "electric" and confused together, from which they differ radically, as they differ between them, as well physically as chemically. That is to say three effects of tension:

1. The effect of tension critical to the R/2 circle is the $\tilde{A}^{\%}$ lectrique effect, of the name of Electry $\tilde{A}^{\prime}$ n or Electr $\tilde{A}^{\prime}$ n, mythical generator of Electra = Alcm $\tilde{A}^{\prime}$ ne, "wife" of Lecture theater-try $\tilde{A}^{\prime}$ n, and frightening mother of the Force of Hercules; 2. The effect of tension between each circle of peripheral flow is the Dionique effect, of name of Dionis, "mother" of Aphrodite Epitragia:

that which follows the mystical "Goat"; 3. The effect of tension between each circle of flow of the axis is the Palladique effect, of crowned name of Pallas = "vibrating by shocks", Pallas optilatis: its pure light being phosphorescent like that of the glow-worm; Athena" glaukapis: to which is devoted owl and phosphorated oils like greases of the brain, sits of Intelligence.

It is clear that the magnetoelectric "beam", as well right as in arc, cannot, by sound obligatory device, that to give the electric tension as well as the total, unipolar flows or bipolar, of two flows of the axis and the periphery, like that of their carrier ring, but without any separation nor analytical insulation in the infinite variety of each one of these impulses, whose properties differ according to turns' from the circles from their own tensions. What rhomboïde only can make it possible to obtain. It is agreed, before continuing, that it is necessary to understand by inductor or means of induction magneto-electro-dioni-palladic, an unspecified cause of shocks: wind, running, moving water or beachcomber, tumble of rocks, blows on a sistre, tambourine or tambourine, etc. being able to accelerate the natural movement of the monades of the Æther. If one takes preferably, like means of induction, an unspecified electrical current or magnetic, already preexistent, it is only as average more convenient to have a constant cause of shocks by these forces in go, but without anything more.

That is to say thus an electrical current like means of induction. But in order to simplify, the talk will be tiny room with the only case of the tension at the point criticizes $R/2$ showing how to separate in the armatures the magnetic flow of the electric flow, or on the contrary how to join together them, - same devices being able to be employed for separation or the meeting, in the armatures peripherals: magnetic flow and of its effect of dionic tension or flow, - in the axial armatures: magnetic flow and of its effect of tension or flow palladic. To increase the extent of the tension on this joint point of the rupture Bi-fluid, instead of limiting this circle with a theoretical circular line, it is appropriate to cut off on a pole, boreal for example, the heavy wood rhomboïde being used as mould until the circumference of this ring by lengthening it such an amount of that one will want, even beyond the neutral line between the southern one and the boreal one by cavity of the southern one. The other pole will be tiny room with a hemispherical or ogival cap, or with a cone which can be truncated, formant "head of bludgeon", and of which the largest diameter will be given by R , - as has and B of figure 6.

In order to be uniform from one end to another its length, the electric inductor (large pure copper wire and striated helical) will carry helical 5 sections of magnetic rollings up, but each one of them forming a stopped, discontinuous line:

1. section, sinistrorse, for the axial one of the boreal point makes hooks of gold, gilded money, etc, on narrow leather tape doubled below another band to avoid contact with the copper wire (electric inductor) on which it is rolled up;
2. section, dextrorse, for boreal QP, made same gold hooks, gilded money or amalgamate, iron and lead, with same leather bands;
3. section, sinistrorse, for the boreal and southern peripheral not duplicated, of small hooks of brass, bronzes, etc, with same leather bands.

4. section, dextrorse for southern QP (like the 2nd section);

5. section, dextrorse, for the axial one of the point of southern (like the 1st section). This rolling up with points 8 notes is thus exactly similar to that employed for the narrow one bandage zinc serving of "pile" soleno-rhomboide.

In this state, the 5 sections function separately, leading the related magnetic flow whose atoms leap by jumps from one point or a granule to another: the axial ones rather quickly, slowly those of the periphery, separated from the fluids of their own tension: electric, dionic, palladic, it is enough to insert between leathers, at the base of the hooks or granules, in contact with them, one souteche or a conducting plank continues of the same metal. And in the studied case, sections 2 and 4 must be joined together, by interior passage, or section 2 to advance on the southern one, so that there is an electrical current involved in the same flow with the double flow of QP reduced to the only dominating movement of southern, the movement dextrogyre. It is this sexual energy couple which constitutes *Heracelia Albia* or Heracleon Forces, who in this state is deoxidizing being able to give rise to hydrocarbons. And in this case, the electric flow tending to being parallel with the inductive line, two bands of sections 2 and 4, instead of being rolled up in whorl, can be folded up and hemmed, englobant the inductive one. But on the contrary to separately collect the fluidic effects of tension: electric, dionic, palladic, it is necessary that there is no contact between the continuous wire their drivers and discontinuous chains of the magnetic atoms, - which continuous wire can be: Pure copper for the electric one; Pure money for the dionique one; And pure gold for the palladic armature, whereas metal hooks or granules of discontinuous drivers of the magnetic atoms can be replaced:

For the peripherals, by small hollow pearls (small glassware, distort precious stones) or balls porous of hard limestone-ferauli - emptied seeds their seeds: roughcast fruits of sainfoin, "Onobrychis caput-galli Lam.", "Onobrychis will satira Lam." (esparcette); cores emptied of micocoules, *Celtis australis* L, bored cores of azederach, *Melia azedarach* L, of wild cherries, *Cerasus arium* D.C., - small watery or terrestrial emptied shells, etc.) ; ? For the axial ones, by seeds full like those with the pepper plant, *Piper longum* L, of gattilier. *Vitex Agnus-castus* L, (from where its name of "Lamb-pure"), cores heavy of wild jujube tree, *Zizyphus lotus* L, etc;

Threaded in chains, with intervals, either on hair, or on wool.

Maintaining to isolate one from the other magnetic atoms to each circular tower from their proper tension, with an aim of using the specific energy which is clean with each one, endowed with virtue different as well physical as chemical, it is enough to lengthen such circular ring which one wants to obtain energy, instead of limiting it to a theoretical circular line (fig. 7), as it has just been known as for the circle criticizes $R/2$. The number of these tensions, in other words of these circular rings, can be regarded as infinite; but in practice, as the experiment shows it, it can be reduced to 3 on each pole axial, to 7 on each pole of peripheral flows, as fig. 8 indicates it.

However induction, like already known as, in the field of force of Aether, is at two distinct times, from where two capital phases:

1. That of decoupling by side tension, releasing them one of the other, the two forces Aether;

2. That of the unfolding by tension in length, boreal and southern for each of two uncoupled flows. In this state of insulations, as well by dual decoupling as by polar unfolding, it is clear as the reciprocal desire of the insulated atoms, in other words affinity, plays instantaneously, - it is in the final analysis with-statement the invincible tendency in an initial state of inertia, perpetual consequence of constant strength breaking activates passive inertia in a state of quietude. Also with the rhomboid-solenoid each impulse of comparable nature is put it fatally moving in two directions opposed, according to unequal tendencies causing the rupture of balance, - the rings of this rupture, or starting points of this contrary walk in two opposed directions, being fixed as follows:

Axial impulses towards the axis: $\frac{1}{3}$ of the distance;

Axial impulses towards P: $\frac{2}{3}$ of the distance.

Peripheral impulses towards the periphery: $\frac{3}{7}$ of the distance;

Peripheral impulses towards P: $\frac{4}{7}$ of the distance; As fig. 8 indicates it.

As an indication, the respective functions of the atoms of the Aether, like organic or vital creative forces, are indicated very summarily, by the statement of the substances procreate, on the diagram of the fig. 9. As it is known as higher, the means of induction could be as well current magnetic already preexistent. The importance of such a fact is very large, because peripheral or zenith flow light is released, accumulated everywhere in enormous quantity, everywhere where there are shocks and unspecified porous body: air blast, falls of water of stopping, movement of wheel or turbine of mills, undulation of waves or movement of the tide, grinding on a grinding stone, etc, - as it is easy to see it, from the marvellous capacity of the "fascine fascinatrice", of the collecting "faggot". These wood light can be divided into two categories:

1. Those which simply tend to attract light peripheral flow, such those already quoted; 2. Those which tend to attract it and to monopolize it (to accumulate or store). Such are those containing of sodium in an organic state: "Capparides", "Frankeniaces", "Salsolaces". In the same way for those very rich in potassium: gorses, etc. The distinction is important for the case where one only aims at helping induction on suitable drivers. Thus on driver prepared like aforesaid, discontinuous if one wants to draw aside the current dionic, who tends to follow his own flow of tension (that tends to also follow the electric flow), this one is started as of the moment of the contact with the light collectors: faggots of gorses to the bottom of some fall of water, protective mantelet of boards of the wheel of a mill, wood raft on the waves, moyette of orache out of tree, *Atriplex halimus* L, shack of caper plant, *Capparis spinosa* L, on a rock in the medium of the spray. It is force moving, easily collected, without any mechanical apparatus, but being able to transform itself into mechanical movement. It can act just as it is like chemical energy. It can create field of force, magnetoelectric inductor, by a device of form rhomboïde similar to those described. It still can, in this field of force creates, to increase, by multiplying it, Aetheric energy, by simple parallel juxtaposition of a second driver in chain intended for the amplified coating,

isolated from the inductor by partition of parchemia: what gives to the unit (inductive and induced) the appearance of the partitioned pod of the astragale. - whose divine art of ancient architecture, with the spine roughcasting its prickles, decorated the twisted column opened out in Aetheric volutes, between which the ritual sheet of acanthus is spread out, whose natural petiole shows in half-compartment triple device of induction: large line of the inductor, double helical line of the armatures. It is with this energy accumulated into enormous volumes on small islands, reefs, shelves or outcrops friable, clashing violently by recohesion sudden, which produces the relaxation, with equal volume of inflow atmospheric in tension electric, that it is necessary without any doubt to allot the astonishing sudden detonations that one hears of time to other with broad maritime trimmings with not very dense, and named emergences "Barizel-gun" (gun of Barigel). Such are also the causes of the sudden hurricanes. Thus the stupid use of the "radiotelegraphic" waves, disconcerting without trêve the Æther of the Earth's atmosphere of which it upsets calms necessary by continual and frightening settings in breaking stress, by ruining the order even seasons necessary to the vegetable life, threatens until N its existence the life of humanity. All this study relates to the field of force rhomboïde taken out of cut, illustrated by qoppa (Q). Same results and same demonstrations with the study in plan, according to the figure of pi (P). Indeed if gold wire are embroidered or one covers with bractœes of the same metal rectangular a leather panel of the shape, formed of cut out bands and imbricating one the other in order to form degrees of staircase, but calculated so that the point criticizes $R/2$ is well exactly with the two jambs of P, it is easy to see, according to the plan of the fig. 10, that peripheral flow, here side flow, tending to rock in horizontal cross under the effect of the tension by the shock, to go up to the zenith, compared to the vertical impulse of the axis which the maximum of this tension will be exactly with the angles of incidence indicated by the cross highlighted: what precisely makes this panel the quartered ecu of the heraldic blazon. On this gold staircase, covered with a cover, slightly tilted on the vertical line, attracting the monades Aether which run up against it, the field of force is laid out according to limits' fixed by carefully calculated surface, with a solution of continuity by light rising of the gold tablecloth, which forms two small vaults finishing in fork with two acute angles, to the two angles of lower incidence of crossed ecu.

1. As it is between the fork of each small vault that the rupture of the monades occurs, whose atoms leap on the points of each fork, that is to say to go towards the axis and to go down with nadir, that is to say to go towards the side edges and to go up to the zenith, an electrical current results from it, which leaves on driver between the southern one the southern axis and side one rocked going to boreal side rocked on this southern of the axis, like iniquitous the photographic reproduction, deposited to be used for the intelligence of description and corresponding to the fig. 10. (All this group will be explained besides, in good time, in its more meticulous details). One sees now why any record player is slowly discharged from its load electric, anywhere it is. The electrophorus, on which come to run up against the monades in perpetual movement, plays the part of the thêseion above, laying out a new induction to with it and invisible, - as these crowned objects: gold hilastêre of the pure and massive gold Arch (: Induction y creating according to the weight of gold), rational of the high priest (i.e. "rational", word-with-word "calculated"), cantabrum augural, and labarum "pagan", which pled without including/understanding it it "Christian" Constantin: in hoc + vinces.

What completes to show moreover that the "cross of Oerstedt" is actually not an electromagnetic cross, but an only magnetic cross, the holy cross essentially, as the diagram of the fig. 11 the highlight, - the electrical current being here (and as always besides) only one inductor which creates a field of force. And as the side magnetic flux always tends to the cross compared to the axial one, limits extreme its deviation, is an angle of 90° , it follows that the magnetized needle can only tend to the cross compared to the current, without it being possible for him never to be put in cross, since, taken between the two southern ones and the two boreal ones of the field of force created, the extreme limit of its possible deviation can be only 45 degrees.

The phenomenon which the fig. 11 explains is thus the same one, exactly, except the inversion of the poles, which that, natural, from the fig. 2b, - according to which, knowing the deviation of the needle of the compass compared to the poles of axis of the ground, one could calculate the exact position of the transverse branch of his "magnetic cross", which varies, one sees it, according to a play of rocker, according to the power of the tension.

The perpetual motion is thus shown: the perpetual motion fluidic, likely to create the perpetual motion fluidic, likely to create the mechanical perpetual motion, - and not the reverse, as it is of use, without major reflexion, to consider the problem.

And here shown that the cause of the movement is the clash chaotic, is in the jump by jerks; that the continuous motion is in oneself impossible, can be only one nonsense. Not being able to be without to be discontinuous, its continuous aspect is only one vain appearance. That of the human heart, eminently discontinuous, jerked, irregular and slow, is the typical example. This movement creates the life, and the life is only one continuation of bumps. And it is thus in truth that are opposed: For the sterile electric purpose, the great creative magnetic cause; With the heating powers frigid power; With nothing of carbon the sovereignty of the Aether; With the factitious straight line the curved arc and the zigzag; With the madresses the speed reason of slowness; Health with the fever, and life with death. The present addition thus completes to show the intrinsic nature of the field of force. - It first of all shows the intimate difference of the two forces in duel which make it up: that of the axis, ponderable, according to the law of gravity, plunging towards nadir it; and that, imponderable, of the periphery, going up towards the zenith, - of which atomic flows, by the stretching of their circular layers, or by the between-shocks in their jumps of progression, have a particular tension; radiation vibratory called palladic for axial, the and dianique one for the periphery, - two forces coupled in a force first, which is trine in power, of which uncoupling by the shock and the clash causes the vibratory effect called electric. It shows then the means of easily the disjoindre per heavy pivot and light entourage; then that to collect them and to put them moving on matters of the three "reigns" (mineral, vegetable, animal), as well as the flows of their effects of tension. It shows finally how to separate them between them as well as their effects of vibratory tension or rays their atomic shocks, by discontinuous ways of stopped drivers, - proving as well as the jump and the jerk is the law of the movement, creator of the life. On these complete data, many and many apparatuses, for innumerable ends: physics, chemical or mechanical, can from now on be built. He was described only those which are typical. The others could be it. But these others, whatever they are, even these currently of use (dynamo, magnetoelectric), and whatever their goals, depend all from now on, without being able to withdraw itself from it, of these major data which reveal the admirable

one and complex mystery of the eternal $\tilde{A}^{\dagger}$ ther: clash of its monades to the shock of their atoms, whose jumps hopping in their spiral dance make an immortal round.

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1929-03-25

[FIGURES ONLY]

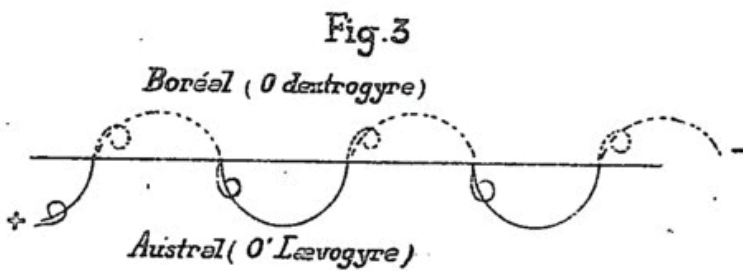
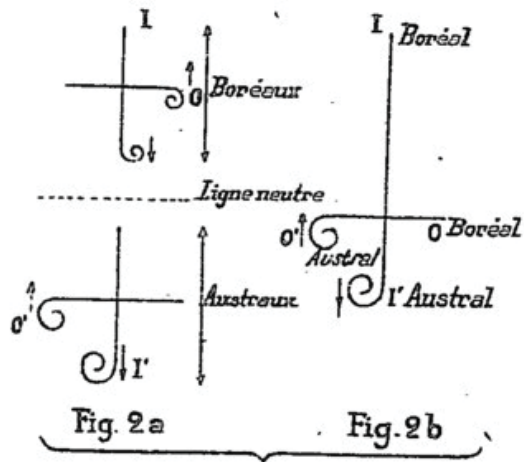
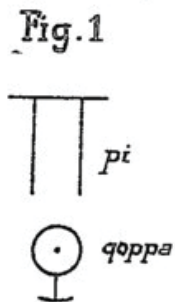


Fig. 4

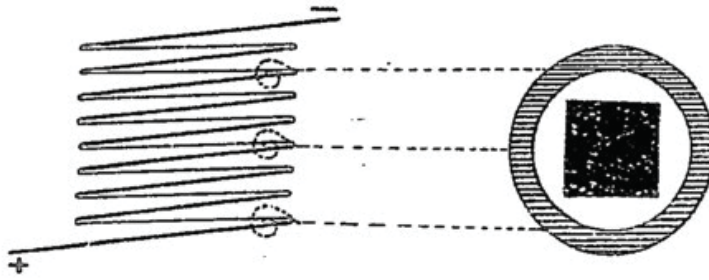


Fig-5

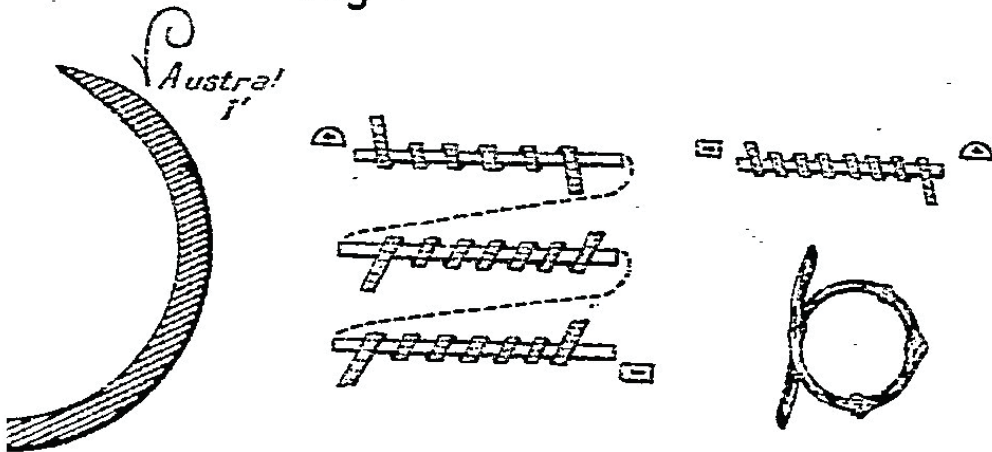


Fig.6a

Fig.6b

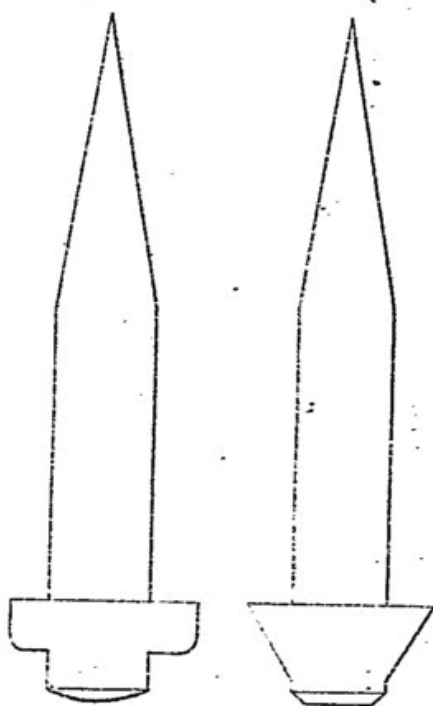


Fig.7

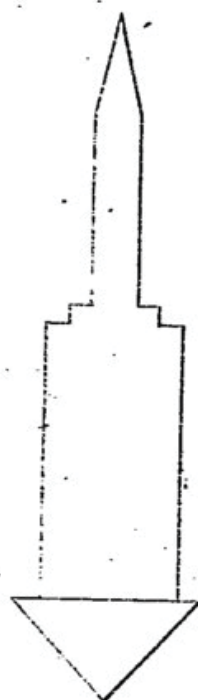


Fig. 8

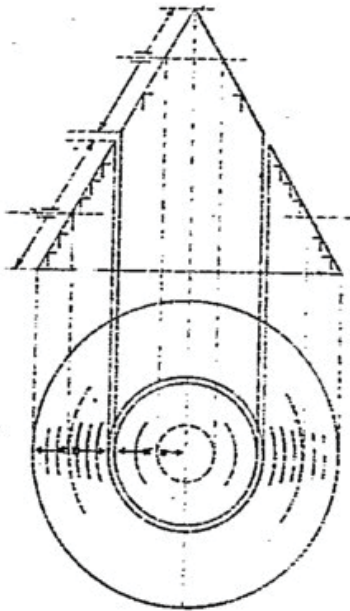


Fig. 9

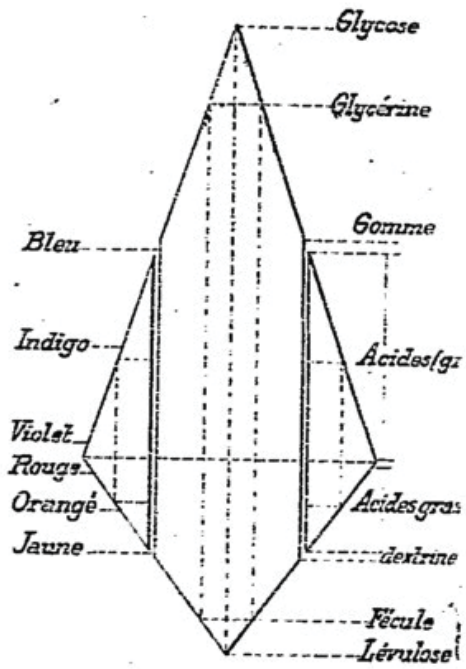
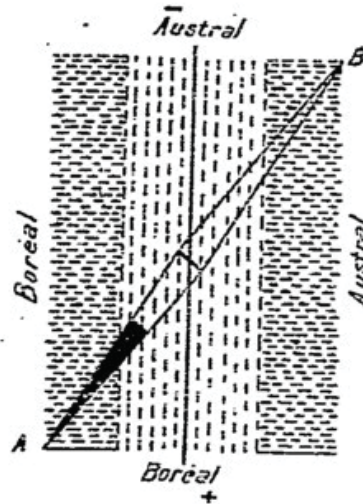


Fig-10



Fig-11



GOOGLE SEARCH RESULTS

Boutard Louis

Sous la plume d'Armand Hatinguais, collaborateur et ami de Louis BOUTARD, le lecteur trouvera dans les pages qui suivent une biographie sommaire de ce ...
pagesperso-orange.fr/quanthommesuite/boutard.htm - 5k

Aether Foundation - Université Internationale

Based on the works of: Mesmer, Karl von Reichenbach, du Potet, Wilhelm Reich, Viktor Schauburger, V. Grebennikov, John W. Keely, Louis Boutard, ...
aether-foundation.org/university.htm - 27k

Aether Foundation - Centre de Recherche

Retour aux sources méconnues de l'antiquité vol.1, Louis Boutard, 1963; Retour aux sources méconnues de l'antiquité vol.2, Louis Boutard, 1963 ...
www.aether-foundation.org/research-center/research-center.htm - 39k

Keely Net Mail List: Jacques Ravatin & novel about J.E.W. Keely

probably don't (like Leon Sprink, Louis Boutard, Max Picard). He experimented with the Leon Sprink device, an orthogonal electromagnetic ...
www.keelynet.com/interact/arc_1_98-7_98/00002830.htm - 5k

Louis Boutard (1880-1958) is one of the French genius that we studied and continue. to appreciate. The good thing is that such genius makes it easier to ...
www.iet-community.org/iwone/IWONE1/iwone_proceedings_final_web_version.pdf

Sous la plume d'Armand HATINGUAIS, collaborateur et ami de Louis BOUTARD, le ... Louis Boutard, notre grand savant ami decede le 8 avril 1958, ...
www.arsitra.org/yacs/files/fetch.php/149/louis_boutard.pdf

See the works of Louis Boutard (the French man quoted above, the Searl effect, Hutchison batteries are an expression of this knowledge). ...
ether.sciences.free.fr/bases.htm - 54k

H2o mon amour: colloque 2004
Travaux et decouvertes Louis Boutard. Yves Le Guelaff, 72 Le Mans. ENVIRONNEMENT.
L'eau dans les habitations: influences geobiologiques et humidite latentes ...
www.effervesciences.com/s_sites/h2o/H2o_coll/col04.htm - 12k

Le pôle Nord n'a pas toujours ete glacial - ARSITRA.org ...
Cela devrait permettre de conforter les travaux de Louis Boutard. Le magnétisme genere du froid donc le pôle n'a pas toujours été magnetique ! aujourd'hui ...
www.arsitra.org/yacs/articles/view.php/116 - 17k

Liste de discussion de radiesthesie
Keely, Schauburger, Louis Boutard, Lavinay, Leon Sprink, Priore, Bignant,. Quiquandon, Reich...et d'autres. D'autre part, au sujet des menhirs, ...
rad.udev.org/a-edf.html - 43k

Etheric substance in relation to sound and vortexs ...
terra.pioneers.free.fr/5S/Books.htm - 16k

Aether Foundation - Presentation
De Mesmer, Wilhelm Reich, en passant par Baraduc, du Potet, Reichenbach John W. Keely, Louis Boutard, Viktor Schauburger, R. Blondot etc., tous ces noms ...
www.fondation-aether.org/presentation-FR.htm - 22k

Fran De AQUINO Gravitational Spacecraft

Fran de Aquino



Professor Fran De Aquino's Webpage -- <http://www.frandeaquino.org/>
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<http://xxx.lanl.gov/abs/gr-qc/9910036v1>
http://xxx.lanl.gov/find/gr-qc/1/au:+Aquino_F/0/1/0/all/0/1

Gravitation and Electromagnetism : Correlation and Grand Unification

by

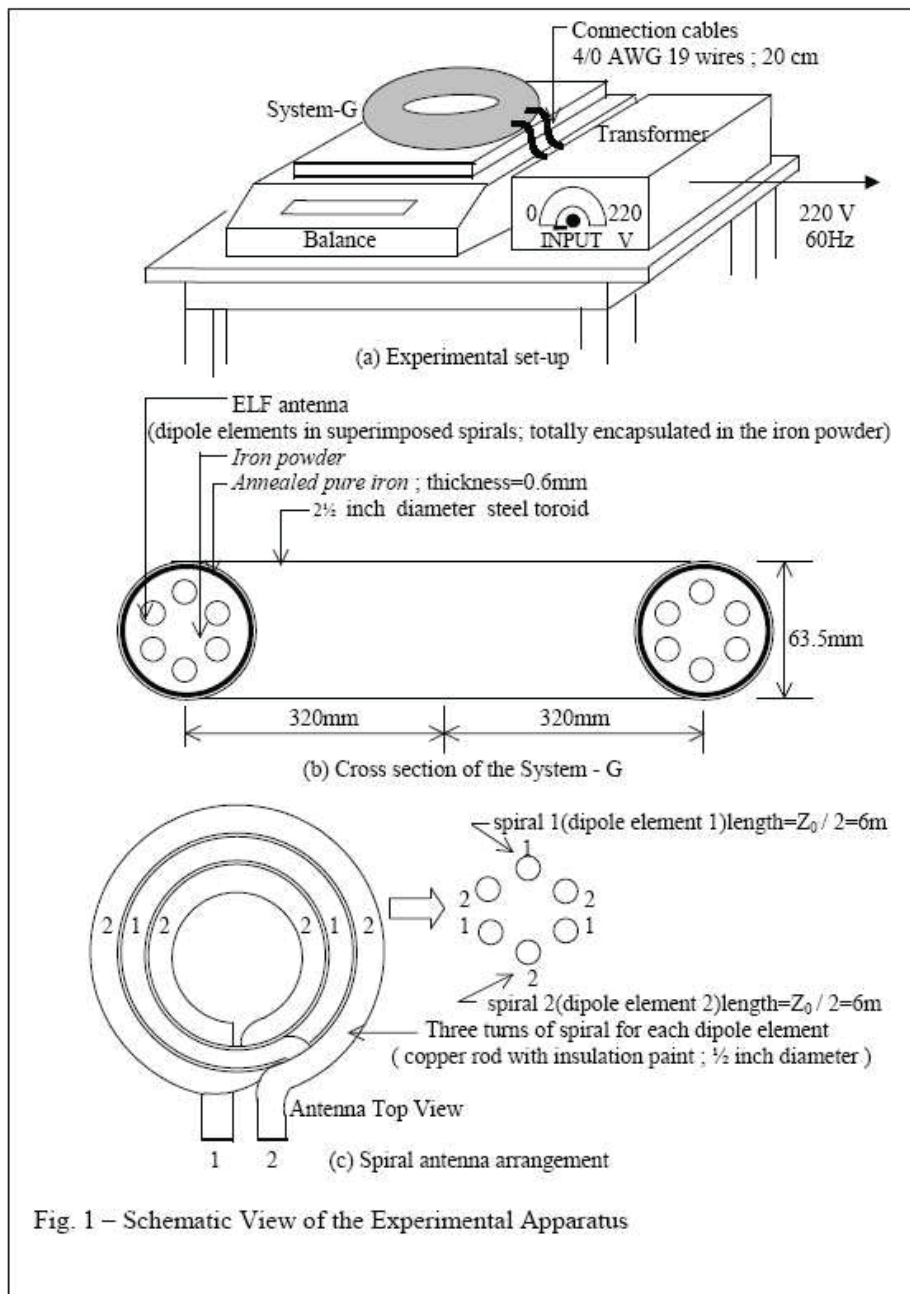
Fran De Aquino
(Maranhao State University, Brazil)

It is demonstrated that gravitational and inertial masses are correlated by an electromagnetic factor. From the practical point of view this is very important because it means the possibility of electromagnetic control of the gravity. Some theoretical consequences of the correlation are:

incorporation of Mach's principle into Gravitation Theory;
new relativistic expression for the mass ;
the generalization of Newton's second law for the motion;
the deduction of the differential equation for entropy directly from the Gravitation Theory.

Another fundamental consequence of the mentioned correlation is that, in specific ultra-high energy conditions, the gravitational and electromagnetic fields can be described by the same

Hamiltonian, i.e., in these circumstances, they are unified ! Such conditions can have occurred inclusive in the Initial Universe, before the first spontaneous breaking of symmetry.



JLN Labs

March 21th, 2000

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The Gravitational SpaceCraft from Fran De Aquino

Warping to the deep space...

by

Fran De Aquino

== g-craftpn.jpg

It is known that photons have null inertial mass ($m_i = 0$) and that they do not absorb others photons ($U = 0$). So, if we put $m_i = 0$ and $U = 0$ in Eq.(1.04), the result is $m_g = 0$. Therefore photons have null gravitational mass. Let us consider a point source of radiation with power P , frequency f and radiation density at distance r given by $D = P / 4\pi r^2$

Due to the null gravitational mass of the photons, it must be possible to build a shield of photons around the source, which will impede the exchange of gravitons between the particles inside the shield and the rest of the Universe. The shield begins at distance r_s from the source where the radiation density is such that there will be a photon in opposition to each incident graviton. This critical situation occurs when $D = hf^2 / S_g$, where S_g is the geometric cross section of the graviton. Thus r_s is given by the relation, $r_s = (rg / f)(P/h)^{1/2}$

== eq1u104.gif

$$(1.04) \quad m_g = m_1 - 2 \left\{ \left[1 + \left[\frac{U}{m_1 c^2} \left[\frac{1}{2} e m_r \left[(1 + (s/we)^2)^{1/2} + 1 \right] \right]^{1/2} \right]^2 \right]^{1/2} - 1 \right\} m_1$$

We then see that the ELF radiation are the most appropriate to produce the shield. It can be easily shown that, if $f \ll 1\text{MHz}$, the radiation will traverse any particle. It is not difficult to see that in this case, there will be "clouds" of photons around the particles inside the shield. Due to the null gravitational mass of the photons, these "clouds" will impede the exchange of gravitons between the particle inside the "cloud" and the rest of the Universe. Thus, we can say that the gravitational mass of the particle will be null with respect to the Universe, and that the space-time inside the shield (out of the particles) becomes flat or euclidean. It is clear that the space-time which the particles occupies remains non-euclidean.

In an euclidean space-time the maximum speed of propagation of the interactions is infinite

== cinf.gif

$$(c \rightarrow \infty)$$

because , as we know, the metrics becomes from Galilei.

Therefore, the interactions are instantaneous . Thus , in this space-time the speed of photons must be infinite, simply because they are the quanta of the electromagnetic interaction. So, the speed of photons will be infinite inside the shield.

On the other hand , the new relativistic expression for mass, Eq.(2.06),

== equ206.gif

$$(2.06) \quad |M_g| = |m_g| \left[1 - v^2/c^2 \right]^{-1/2}$$

shows that a particle with null gravitational mass isn't submitted to the increase of relativistic mass, because under these circumstances its gravitational mass doesn't increase with increasing velocity .i.e., it remains null independently of the particle's velocity. In addition , the gravitational potential

-== phigm.gif

$$\varphi = GM_g/r$$

or the particle will be null and, consequently , the component

== goophi.gif

$$g_{00} = -1 - 2\varphi/c^2$$

of the metric tensor will be equal to -1.

Thus , we will have

== ds2goo.gif

$$ds^2 = g_{00} (dx_0)^2 = g_{00} (icdt')^2 = c^2 (dt')^2$$

where t' is the time in a clock moving with the particle , and ds² = c² dt² where t is the time indicated by a clock at rest (dx = dy = dz = 0).

From the combination of these two equations we conclude that t' = t .This means that the particle will be not more submitted to the relativistic effects predicted in Einstein's theory. So, it can reach and even surpass the speed of light . We can imagine a spacecraft with positive gravitational mass qual to (m) kg , and negative gravitational mass (see System-G in appendix A) equal to - (m - 0.001) kg . It has a shield of photons , as above mentioned. If the photons,

which produce the shield , radiate from the surface of the spacecraft , then the space-time that it occupies remains non-euclidean ,and consequently , for an observer in this space-time , the total gravitational mass of the spacecraft, will be

== mg001.gif

$$|M_g| = 0.001 \text{ kg}$$

. Therefore , if its propulsion system produces $F=10\text{N}$ (only) the spacecraft acquires acceleration

== aequalf.gif

$$a = F / |M_g| = 10^4 \text{ m/s}^2$$

(see Eq.(2.05)).

== equ205.gif

$$(2.05) F = |M_g| a$$

Furthermore, due to the "cloud" of photons around the spacecraft its gravitational interaction with the Universe will be null , and therefore, we can say that its gravitational mass will be null with respect to the Universe. Consequently, the inertial forces upon the spacecraft will also be null, in agreement with Eq.2.05 (Mach's principle).This means that the spacecraft will lose its inertial properties . In addition, the spacecraft will can reach and even surpass the speed of light because , as we have seen , a particle with null gravitational mass will be not submitted to the relativistic effects.

Fran De Aquino, April 20th, 2000

JLN Labs

The System-G from Fran De Aquino : Engineering the device...

by

Fran De Aquino and Steve Burns

March 17th, 2000

The System-G experiment has been performed successfully by Fran De Aquino on January 27th, 2000 at the Physics Department of Maranhao State University in Brazil.

In the System-G torus, the ELF energy generated by the dipole antenna must be fully absorbed the atoms of the annealed iron lamina. The ELF energy is done by this equation below :

== sysg104.gif

$$U = \eta P_a / f = (\eta S_a / S f) P = 2(\eta S_a / S) (I_0 z_0)^2 (\frac{1}{2} \mu_p \sigma_p \omega)^{3/2} / 3 \sigma_p \omega$$

By substituting U in Eq.(1.05) , (below) for $\omega < \sigma_i / \epsilon_i$, (index i refers to *pure annealed iron*)

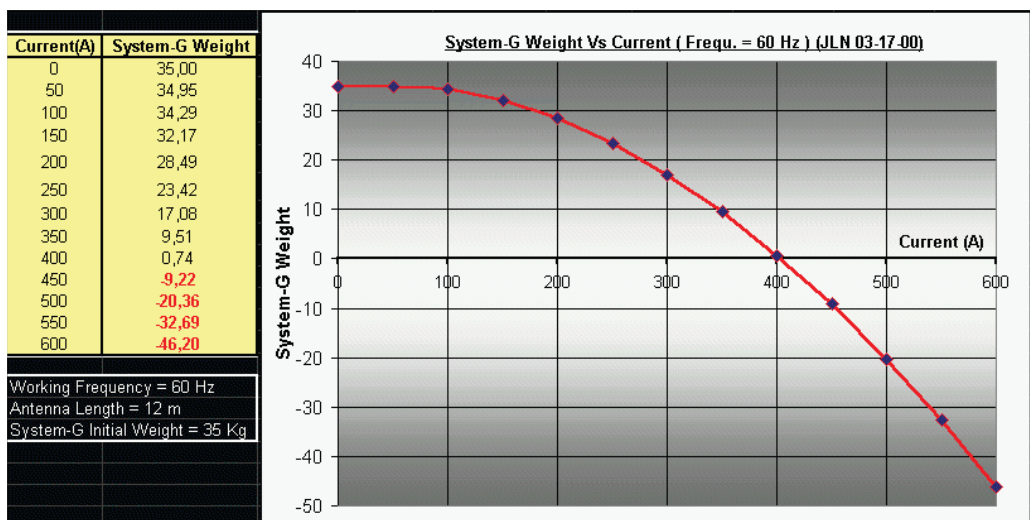
$$m_g = m_a - 2 \left\{ \sqrt{1 + \left\{ \frac{U}{m_a c^2} \sqrt{\frac{c^2 \mu_i \sigma_i}{4 \pi f}} \right\}^2} - 1 \right\} m_a$$

Note: $\eta \approx 1$; $S_a = 1.77 \times 10^{-20} \text{ m}^2$; $S = 0.374 \text{ m}^2$; $m_a = 9.27 \times 10^{-26} \text{ kg}$; $\mu_p = 75 \mu_0$; $\sigma_p = 10 \text{ S/m}$; $z_0 = 12 \text{ m}$; $\mu_i = 25000 \mu_0$; $\sigma_i = 1.03 \times 10^7 \text{ S/m}$.

Fran De Aquino

The curve below, shows that a System-G weight (35 Kg) can be nullified at 60Hz with a current of 400 Ampere.

== sysgcur.gif



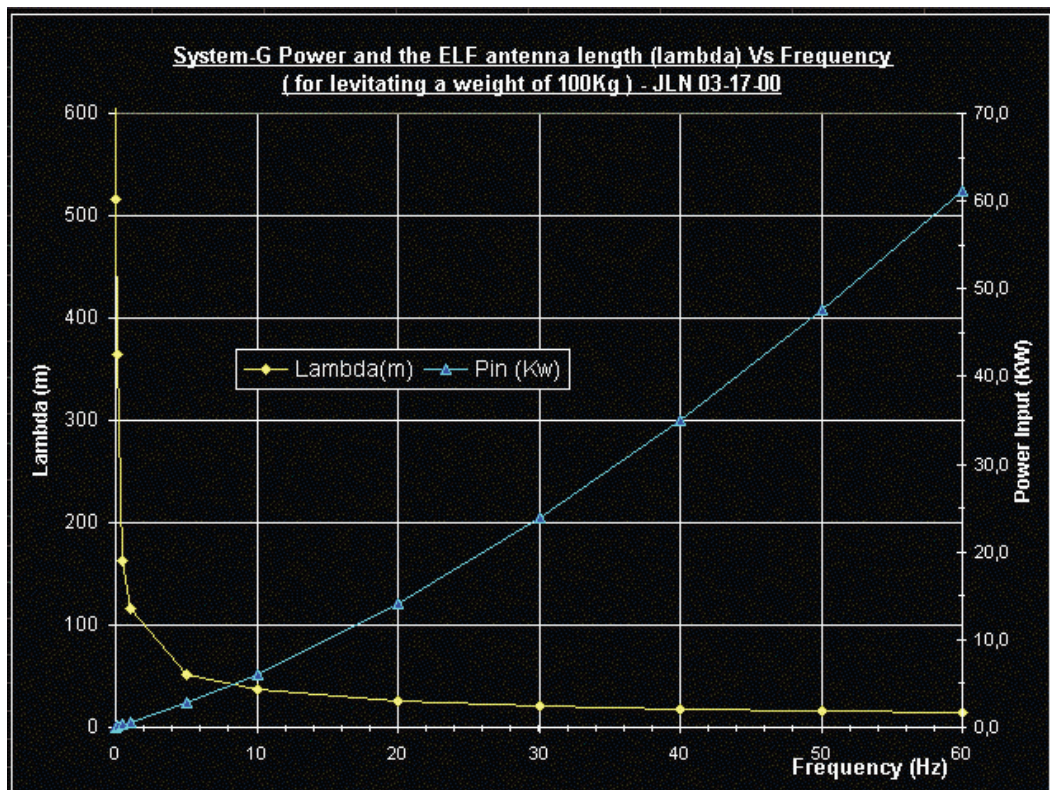
The use of the power grid for the basic System-G experiment has been conducted easily by using the power grid frequency (60 Hz, in Brazil), this was energy consuming (about 11 KW). But for improving the efficiency of the whole apparatus, Power Input Vs weight lifted, its seems much adapted to use a lower frequency than previously for the ELF signal as shown on the table below :

== sysgpwr2.gif

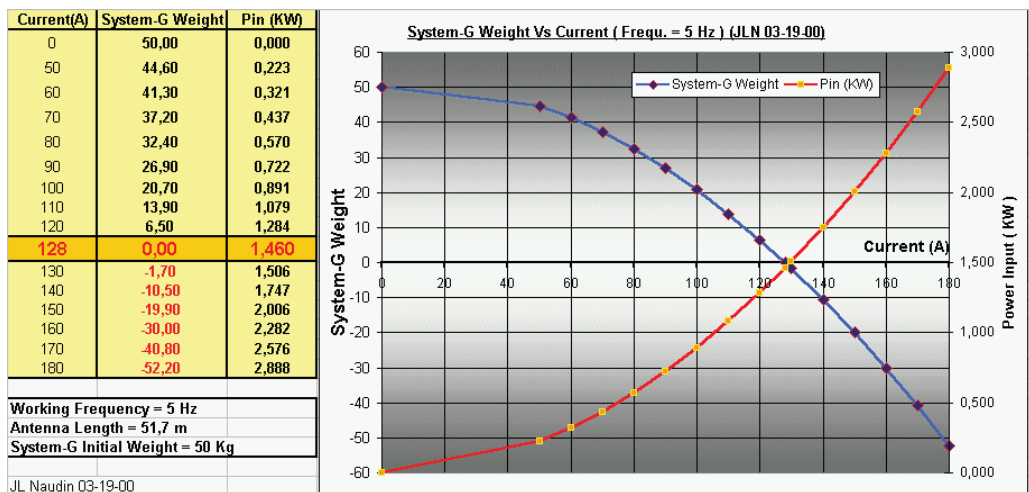
Conditions required for levitating 100 Kg			
Freq (Hz)	Current (A)	Lambda(m)	Pin (Kw)
0,01	28,32	1155,0	0,032
0,05	43,12	516,5	0,080
0,1	52,00	365,2	0,123
0,5	82,24	163,3	0,367
1	101,85	115,5	0,632
5	178,15	51,7	2,829
10	235,00	36,5	6,088
20	318,00	25,8	14,166
30	382,70	21,1	23,871
40	438,60	18,3	35,069
50	488,50	16,3	47,562
60	533,8	14,9	61,174
This diagram shows that the power input requirement drops dramatically with the ELF frequency used. This is the power input required for nullifying the weight of a System-G of 100 KG.			
JLN upd 03-17-00			

You notice that, to levitate a 100 Kg weight apparatus,
at 60 Hz we need 61 KW and for the same results, only 632 W is required at 1 Hz.

== sysgpwr.gif



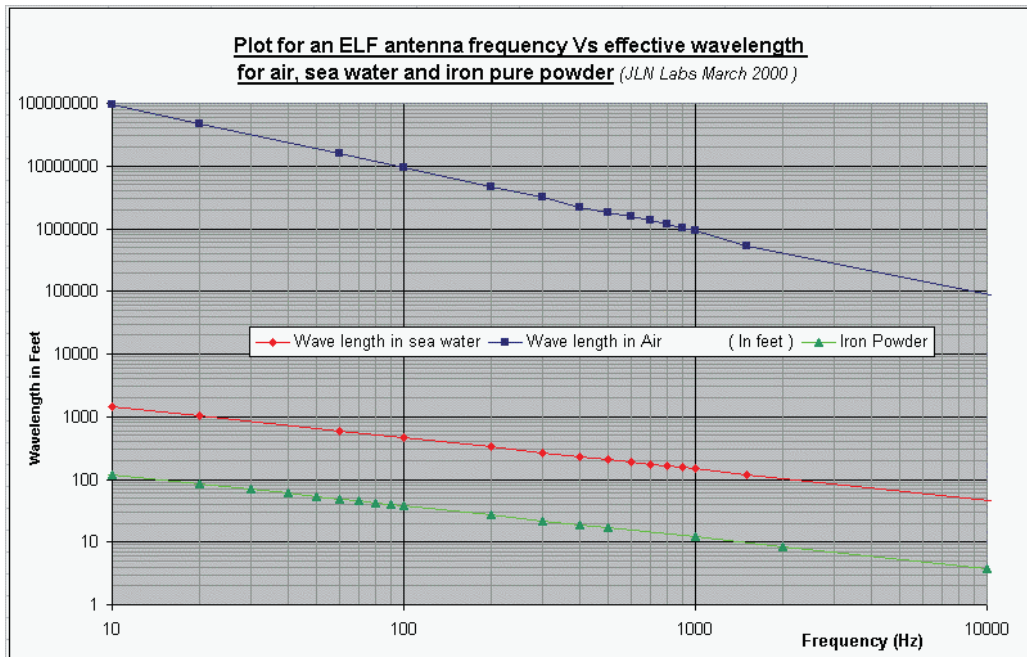
== sysg5hz.gif



You may notice on the diagram above that only 1460 Watts are required to levitate 50 Kg at a

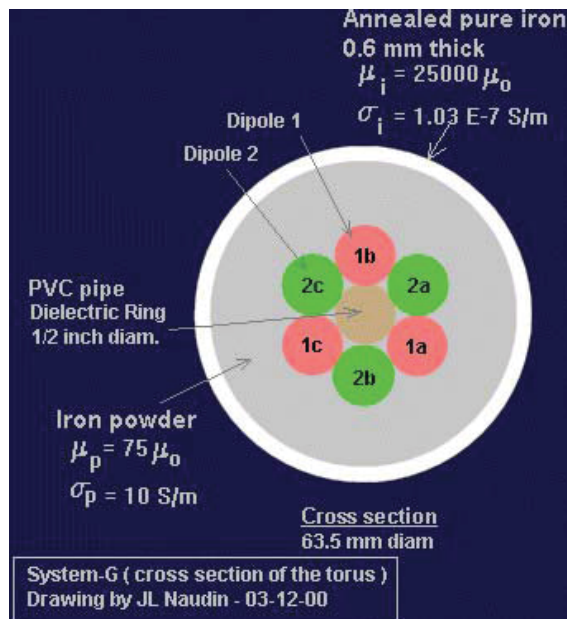
frequency of 5 Hz...

== elfaiseir.gif



The plot above, shows the phase velocity reduced wavelength for an ELF antenna in seawater (published by the US Navy in 1960's), in air and also in a pure iron powder (for the System-G).

== sysgcross.gif



=== fdafrqexp.gif

The atoms absorb an ELF energy $U=\eta P_a /f$, where η is a particle-dependent absorption coefficient and P_a is the incident radiation power on the atom ; $P_a=DS_a$ where S_a is the atom's *geometric* cross section and $D=P/S$ the radiation power density on the atom. Thus ,

$$U= \eta DS_a /f \quad (1)$$

By substituting this equation in Eq(1.05) , we will have

$$m_g = m_a - 2 \left\{ \sqrt{1 + \left\{ \frac{\eta DS_a}{m_a c^2} \sqrt{\frac{c^2 \mu_{body} \sigma_{body}}{4\pi f^3}} \right\}^2} - 1 \right\} m_a \quad (2)$$

We then see that m_g DEPENDS ON f^{-3} .This is the GENERAL CASE.

However, IN PARTICULAR CASE where the radiation source is a short dipole encapsuled with a material (μ_p, σ_p) it can be easily show that

$$U = \eta DS_a / f = \frac{2\eta S_a (I_0 z_0)^2}{3\sigma_p S \omega} \left(\sqrt{2} \mu_p \sigma_p \omega \right)^{3/2} \quad (3)$$

Thus, if the material which absorbs the ELFradiation has (μ_i, σ_i).Then equation (1.05) gives,

$$m_g = m_a - 2 \left\{ \left[1 + (2\eta S_a / 3S m_a c)^2 (\mu_i \sigma_i \sigma_p / 2) (\mu_p / 2)^3 (z_0)^4 I_0^4 \right]^{1/2} - 1 \right\} m_a$$

which is independent of the frequency.

*Fran De Aquino
April 13th, 2000*

[[ZIP](#)]

Right Click / Save

Notes : You must have the JavaScript enabled in your Internet browser. This very helpful tool will allow you to find quickly the good setup for building your own System-G. You need only to enter the specifications of your components in the green areas and the solver will give you the calculated values in the red areas. The preset values are the parameters used by Fran De Aquino during his historical System-G experiment on January 27th, 2000, so you will be able to check by yourself that the calculated values are close to the experimental values measured by Fran De Aquino.

When all your parameters are entered, you need only to press the "Calculate" button . To restart again the calculation, the "Restore" button will reset all the data's fields to their initial values.

Good Engineering,

Jean-Louis Naudin

Gravity Control by Means of Electromagnetic Field Through Gas or Plasma at Ultra-Low Pressure

by

Fran De Aquino

[[PDF](#)]

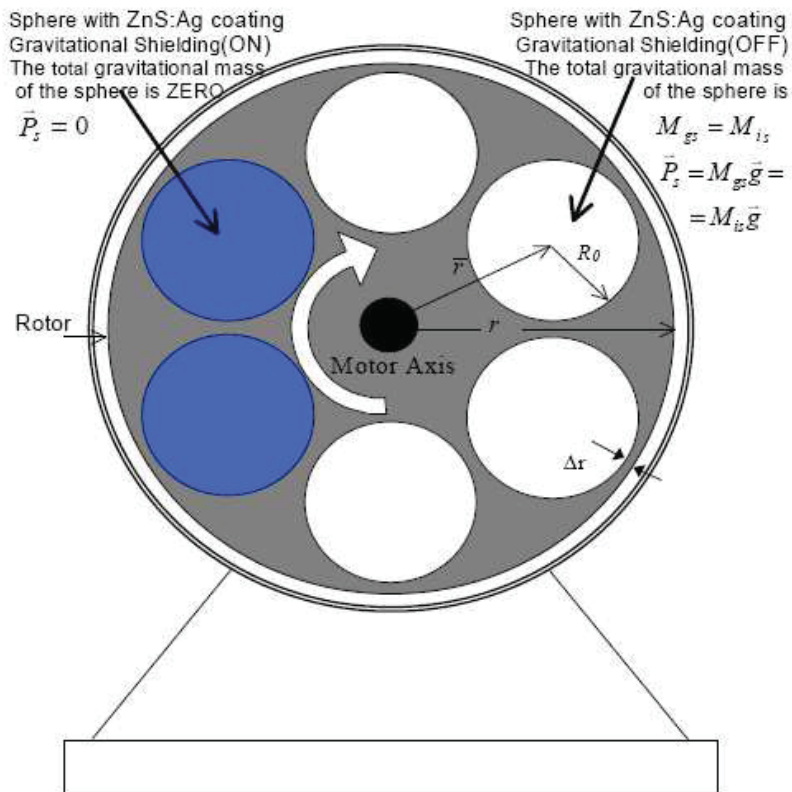
A Gravitational Shielding Based on ZnS:Ag Phosphor

by

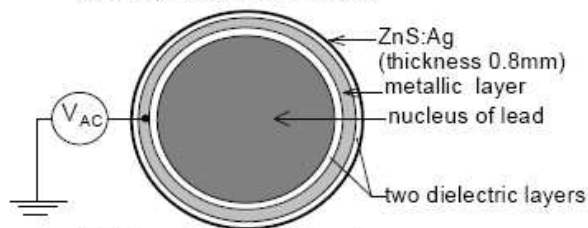
Fran De Aquino

[[PDF](#)]

It was shown that there is a practical possibility of gravity control on electroluminescent materials. We present here a type of G-Shielding based on an EL phosphor, namely zinc sulfide doped with silver (ZnS:Ag) which can reduce the cost of the G-Motor previously presented...



(a) Cross-section of the Motor



(b) Cross-section of the spheres

Fig.2 – The Gravitational Motor

How to Extract Energy Directly from a Gravitational Field

by

Fran De Aquino

[[PDF](#)]

Gravity is related to gravitational mass of the bodies. According to the weak form of Einstein's General Relativity equivalence principle, the gravitational and inertial masses are equivalent. However recent calculations (gr-qc/9910036) have revealed that they are correlated by an adimensional factor, which depends on the incident radiation upon the particle. It was shown that there is a direct correlation between the radiation absorbed by the particle and its gravitational mass, independently of the inertial mass. This finding has fundamental consequences to Unified Field Theory and Quantum Cosmology. It was also shown that only in the absence of electromagnetic radiation this factor becomes equal to one and that, in specific electromagnetic conditions, it can be reduced, nullified or made negative. This means that there is the possibility of control of the gravitational mass by means of the incident radiation. This unexpected theoretical result was recently confirmed by an experiment (gr-qc/0005107). Consequently there is a strong evidence that the gravitational forces can be reduced, nullified and inverted by means of electromagnetic radiation. This means that , in practice we can produce gravitational binaries, and in this way to extract energy from a gravitational field. Here we describe a process by which energy can be extracted directly from any site of a gravitational field.

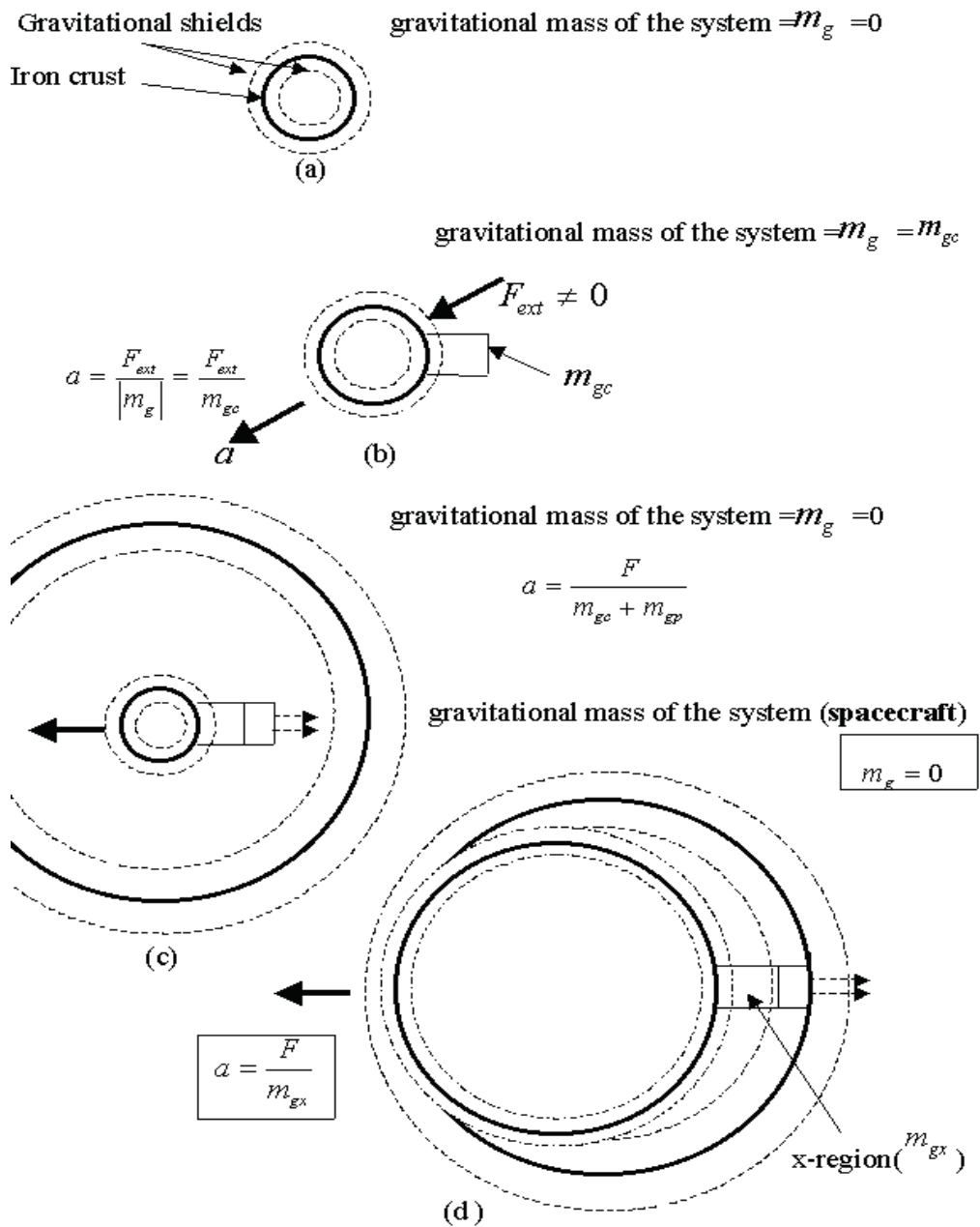


Fig. 1- The Propulsion of the Spacecraft with Null Gravitational Mass.

<http://www.frandeaquino.org/>
<http://users.elo.com.br/~deaquino/>

Professor Fran De Aquino's Webpage

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For several years, physicist Fran De Aquino worked as Senior-Researcher at the Instituto Nacional de Pesquisas Espaciais - INPE (National Institute for Space Research - INPE , Brazil) (INPE Registration Number 02844 CRN, SIAPE Registration Number 0024730). He was also Director of the INPE's Space Observatory in the city of São Luís, since the installation of this observatory until 1997.

Currently, physicist Fran De Aquino is a professor at the Universidade Estadual do Maranhão-UEMA (State University of Maranhao, Brazil), (UEMA Registration Number 5155). He also works as Consultant in Science & Technology for international companies. Fran De Aquino's publications list includes several scientific articles and books.

His research involves many relevant aspects of Gravitation and Cosmology. After thirty years of research, professor De Aquino discovered that the gravity can be quantized, starting from the generalization of the known action function. In discovering the quantization of gravity, Fran De Aquino made true an old dream of the Quantum Physicists - to obtain a Quantum Theory for Gravity.

This Quantum Theory of Gravity unifies Einstein's Theory of General Relativity with the Quantum Theory and, furthermore, it leads to an equation of correlation between gravitational mass and the inertial mass, which opens doors for gravity control technologies and the G ENERGY , the energy of the future that possibly it will change the paradigms of energy generation, transportation and telecommunications.

The theory shows that there is a revalidation of the strong equivalence principle, and consequently Einstein's equations are preserved. Thus, De Aquino's Quantum Theory of Gravity does not invalidate Einstein's Theory, on the contrary, it just complements this theory, in such a way as Einstein's theory has complemented Newton's theory.

The Einstein's equations are deduced directly from De Aquino's theory. Moreover, a generalized equation for inertial forces is obtained , which incorporates the Mach's principle into Gravitation, explaining therefore the origin of inertia, and yielding a new expression for gravitational forces which includes the Newton's attraction law, and shows that the graviton must have spin 1 and not 2. The theory also allows the deduction of the Entropy's differential equation; the Hamiltonian for a particle in an electromagnetic field and the reciprocal fine structure constant. It is also possible to explain the Inflation Period and the Hidden Matter, without assuming the existence of vacuum fluctuations. Similarly, it is possible to obtain the Casimir force, without assuming the

existence of zero-point field. Another fundamental consequence of De Aquino's theory is the possibility of control of the gravitational mass. In addition, De Aquino's Quantum Theory of Gravity shows that, in specific ultra-high energy conditions, the gravitational and electromagnetic fields can be described by the same Hamiltonian, i.e., in these circumstances, they are unified. Such conditions might have occurred inclusively in the Initial Universe, before the first spontaneous breaking of Symmetry. Therefore, this Kinetic approach to Quantum Gravity will allow us to understand some crucial matters in Quantum Cosmology, including the early stages of the Big Bang. For some physicists, this theory might be it the Holy Graal of Modern Physics because it can complete the unification of all fundamental laws of Physics. Now, it is possible for the first time to write down a single equation (Eq.1 of Mathematical Foundations of the Relativistic Theory of Quantum Gravity. See T-shirt below) that can explain all the laws of physics(including the Einstein's equations), all the forces of nature - the proverbial "theory of everything". This grand unified theory comprhends Philosophy, God (including feminine aspects), and the Soul. It is not restricted only to the material world it includes not only force particles and matter particles, not only general relativity and Quantum Gravity, but also a theory of consciousness.

<http://users.elo.com.br/~deaquino/Kinetic.pdf>

<http://arxiv.org/abs/physics/0212033>

<http://cdsweb.cern.ch/> (Record # 595902)

<http://issuu.com/aquino/docs/kinetics>

<http://www.scribd.com/doc/21561154/Mathematical-Foundations-of-the-Relativistic-Theory-of-Quantum-Gravity>

<http://sciencestage.com/d/5856128/mathematical-foundations-of-the-relativistic-theory-of-quantum-gravity.html>

Mathematical Foundations of the Relativistic Theory of Quantum Gravity

by

Fran De Aquino

[[PDF](#)]

Abstract: Starting from the action function, we have derived a theoretical background that leads to the quantization of gravity and the deduction of a correlation between the gravitational and inertial masses, which depends on the kinetic momentum of the particle. We show that there is a reaffirmation of the strong equivalence principle and, consequently, Einstein's equations are preserved. In fact, such equations are deduced here directly from this approach to Gravity. Moreover, we have obtained a generalized equation for inertial forces, which incorporates the Mach's principle into Gravitation. Also, we have deduced the equation of Entropy; the Hamiltonian for a particle in an electromagnetic field and the reciprocal fine structure constant. It is possible to deduce the expression of the Casimir force and also to explain the Inflation Period and the Missing Matter, without assuming the existence of vacuum fluctuations. This new approach to Gravity will allow us to understand some crucial matters in Cosmology.

Gravity Control by Means of Electromagnetic Field through Gas or Plasma at Ultra-Low Pressure

by

Fran De Aquino

Abstract : It is shown that the gravity acceleration just above a chamber filled with gas or plasma at ultra-low pressure can be strongly reduced by applying an Extra Low-Frequency (ELF) electromagnetic field across the gas or the plasma. This Gravitational Shielding Effect is related to recent discovery of quantum correlation between gravitational mass and inertial mass. According to the theory samples hung above the gas or the plasma should exhibit a weight decrease when the frequency of the electromagnetic field is decreased or when the intensity of the electromagnetic field is increased. This Gravitational Shielding Effect is unprecedented in the literature and can not be understood in the framework of the General Relativity. From the technical point of view, there are several applications for this discovery; possibly it will change the paradigms of energy generation, transportation and telecommunications.

Contents

1. Gravity Control Cell (GCC)
2. Gravitational Motor
3. Gravitational Spacecraft
4. Decreasing of inertial forces on the Gravitational Spacecraft.
5. Gravity Control inside the Gravitational Spacecraft.
6. Gravitational Thrusters.
7. Artificial Atmosphere surround the Gravitational Spacecraft.
8. Gravitational Lifter.
9. High Power Electromagnetic Bomb (A new type of E-bomb).
10. Gravitational Press of Ultra-High Pressure.
11. Generation and Detectation of Gravitational Radiation.

12. Quantum Gravitational Antennas. Quantum Transceivers.
13. Instantaneous Interstellar Communications
14. Wireless Electric Power Transmission using Quantum Gravitational Antennas.
15. Method and Device using GCCs for obtaining images of Imaginary Bodies.

The Gravity Control Cell

A device called, the Gravity Control Cell, which has the property of reducing, to annul, to invert and to intensify the intensity of the local gravity, has been developed starting from the discovery of the quantum correlation between the gravitational mass and inertial mass published in the article " Mathematical Foundations of the Relativistic Theory of Quantum Gravity ", Copyright © 2002-2008 by Fran De Aquino, available at: arXiv - physics/0212033. In this article, it was shown that any body submitted to the action of an electromagnetic field has its gravitational mass reduced and that the gravity acceleration in any traverse direction to the body is reduced at the same proportion in which the gravitational mass of the body it was reduced. According to this principle, here called of General Principle of Gravity Control, the change in the gravitational mass of the body, and in the gravity acceleration in any transverse direction to the body, is directly proportional to the product of the refraction index by the density of electromagnetic energy applied upon the body, and inversely proportional to the mass density of the body (q.v. "Mathematical Foundations of the Relativistic Theory of Quantum Gravity"). The use of gas or plasma at ultra-low pressure in the Gravity Control Cells elapses from the fact that the gases or plasmas have low mass density and, as smaller the smaller pressure also the mass density of the gas or plasma. The Gravity Control Cell is a device absolutely unprecedented in the literature. From the technological viewpoint, there are several applications for this invention; possibly it will change the paradigms of the energy generation (G ENERGY), transportation and telecommunications. As shown in the article "Gravity Control by means of Electromagnetic Field through Gas or Plasma at Ultra-Low Pressure", Copyright © 2007 by Fran De Aquino, available at: arXiv - physics/0701091, the Gravity Control Cells can be used to convert gravitational(G) energy into rotational mechanical energy. Thus, starting from this Gravitational Motor it is possible to get electric energy by means of a conventional electric generator coupled to the Gravitational Motor. The Gravity Control Cells can also be used to yield thrust. In this case the thruster system, called of Gravitational Thruster can produce several Kilonewtons. These Gravitational Thrusters can be used as basic elements of propulsion in the most of transport systems, and certainly they will have applications in the most several industrial processes; this technology probably will find several applications in other areas of the human activity. They can still be used in the construction of a Gravitational Press of Ultra-high Pressure, as detailed in the article "Gravity Control by means of Electromagnetic Field through Gas or Plasma at Ultra-Low Pressure ". In aerospace spacecrafts (Gravitational Spacecrafts) they will have a lot of applications, for example, to produce artificial gravity inside the spacecraft. As a consequence of General Principle of Gravity Control, and of the advent of the "Gravity Control Cells" arises then a new concept of spacecraft and aerospace flight, it also appears a new benefit for the area of the telecommunications with the possibility of building transmitters and receivers whose operation are based on the method of gravity control here described. These systems can be

also projected for wireless electric power transmission. (q.v. "Gravity Control by means of Electromagnetic Field through Gas or Plasma at Ultra-Low Pressure")...

<http://www.electrogravity.com/Uncertainty.htm>

A New Approach To The System-G Test by Fran De Aquino Generalizes All Electrogravitational Force Tests

by

Jerry E. Bayles

quark137@aol.com
jebayles2001@yahoo.com
Electrogravitational Research Project
November 09, 2001

UNCERTAINTY RULES!

Recently I have analyzed the torus test done by Fran De Aquino that showed a significant weight loss according to his published results. My recent analysis of his test involves the quantum aspect of uncertainty rather than the extreme low frequency electromagnetic absorption of energy by iron atoms as proposed in his paper, "Gravitation and Electromagnetism; Correlation and Grand Unification," gr-qc/9910036.

It is an established fact that macroscopic systems cannot be expected to exhibit quantum effects since the uncertainty associated with a large mass is very small as is shown by the following equation:

$$m = \frac{h}{2\pi \cdot dv \cdot dr} \quad (\text{Assume the mass to be several kilograms.})$$

h = Planks constant, dv is the uncertainty in the velocity and dr is the uncertainty in radius all in S. I. units.

Therefore, it is very unlikely that your car will 'leak' out of the garage due to a quantum action unexpectedly! However, on the quantum scale of a single atom, uncertainty really does rule since absorption and emission occur via quantum 'bits' of energy. Albert Einstein established this fact (circa 1905) when he described this action to explain the photoelectric effect: it was not the amount of radiation that caused electron emission from a metal but the frequency. The higher the frequency, the more energy the electron absorbed and the faster it was ejected from the metal. Thus was established the famous equation $E = hf$ where E is the energy related to the absorption or emission while f is the related frequency and h is Plank's constant.

My Analysis:

I propose that what is occurring in Fran's torus test is a large increase in the spin and magnetic moment uncertainty of the iron atoms. Thus, a phase change occurs related directly to the spin uncertainty of the electrons in the iron atoms. This phase change works to reduce the electrogravitational action force...

3. Quantization of Velocity (c the Universal Reference Speed)
4. Quantization of Time (quantized spacetime—space and time being granular, not continuous, at its smallest scales)
5. Correlation Between Gravitational and Inertial Masses
6. Generalization of Lorentz's Force
7. Gravitoelectromagnetic fields and Gravitational shielding
8. Gravitational Effects produced by ELF radiation upon the electric current
9. Magnetic Fields affect gravitational mass and the momentum
10. Gravitational Motor
11. Gravitational Mass and Earthquakes
12. The Strong Equivalence Principle
13. Incorporation of the Mach's Principle into Gravitation Theory
14. Deduction of the Equations of General Relativity
15. Gravitons: Gravitational Forces are also Gauge forces
16. Deduction of Entropy Equation starting from the Gravity Theory
17. Unification of the Electromagnetic and Gravitational Fields
18. Elementary Quantum of Matter
19. The Casimir Force is a gravitational effect related to the Uncertainty Principle
20. The Shape of the Universe and Maximum speed of Tachyons
21. The Hidden Mass and explanation for red-shift anomalies

22. The Expanding Universe is accelerating and not decelerating
 23. Gravitational and Inertial Masses of the Photon
 24. What causes the fundamental particles to have masses?
 25. Electron's imaginary masses
 26. Transitions to the Imaginary space-time
 27. Superparticles (hypermassive Higgs bosons) and Big-Bang
 28. Deduction of Reciprocal Fine Structure Constant and the Uncertainty Principle
 29. The Inflation Period
 30. The Origin of the Universe
 31. A Solution for the Black Hole Information Paradox.
 32. A Creator's need
 33. The Origin of Gravity and Genesis of the Gravitational Energy
 34. Explanation for the anomalous acceleration of Pioneer 10
 35. New type of interaction
 36. Allais effect explained
-

Transformer Supplemental Information

by

John Xydous

[[PDF](#)]

" ... we can use almost any welding transformer to drive the antenna ... "

Mehran T. KESHE Magnetic G-Fields

SEPMAFs (Specific Entangled Plasmatic Magnetic Fields) for over-unity energy production, transmutations, industrial processes, anti-G, &c... Metal-organic frameworks (Kt Fluid) captures atmospheric CO₂ & methane at room temperature ... & much more ... Shades of Schappeller ...

From the Keshe website --

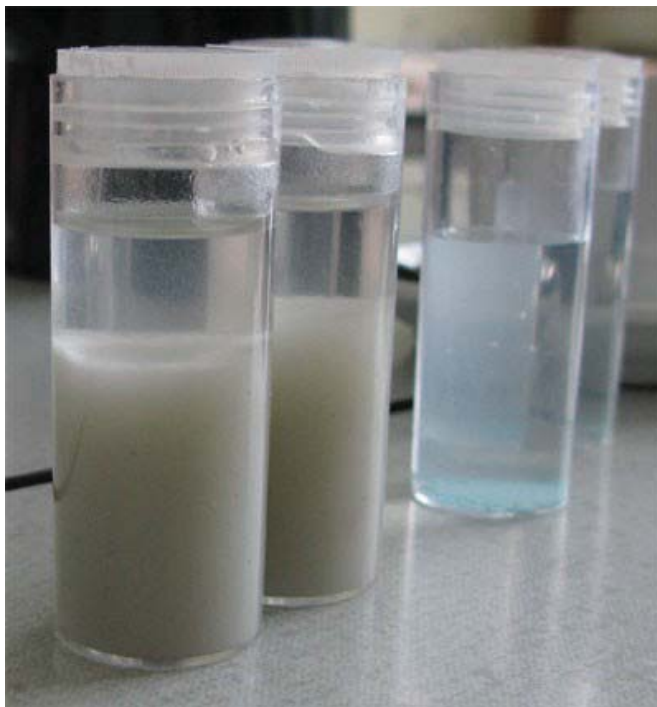
<http://www.keshefoundation.com>

info@keshefoundation.com

THE SOLUTION FOR CLIMATE CHANGE!

The Keshe Foundation is proud to announce the development of "**Day & Night Panels**" which deliver day and night current at levels which are considerably higher than the actual generation of solar panels. This means that D&N-panels will be able to power constantly electrical and electronic devices. This new technology is under patent application.

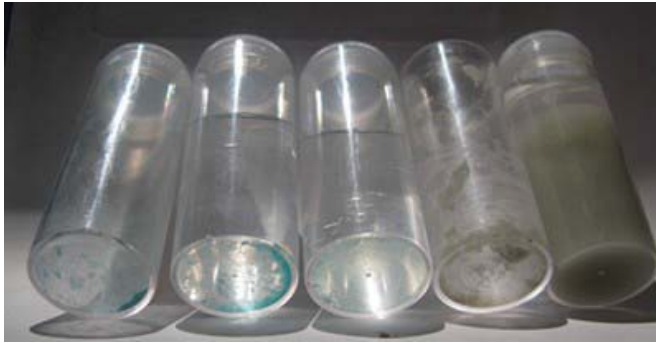
At the same time these panels have the possibility to capture CO₂ and CH₄ in liquid state from the air. CO₂ and CH₄ are important greenhouse gasses.



The image on the left shows two containers with a white/grey CO₂ deposition, that is the liquid, jelly-like, CO₂. On top is water.

The third tube contains a solution of CH_4 , with at the bottom a green-blueish CH_4 deposition.

All these materials were tested by several type of spectroscopy at a University in Belgium



This image shows five tubes (from left to the right): a tube with CH_4 powder, CH_4 deposit in solution, CH_4 solution, tube with solid CO_2 , tube with liquid CO_2

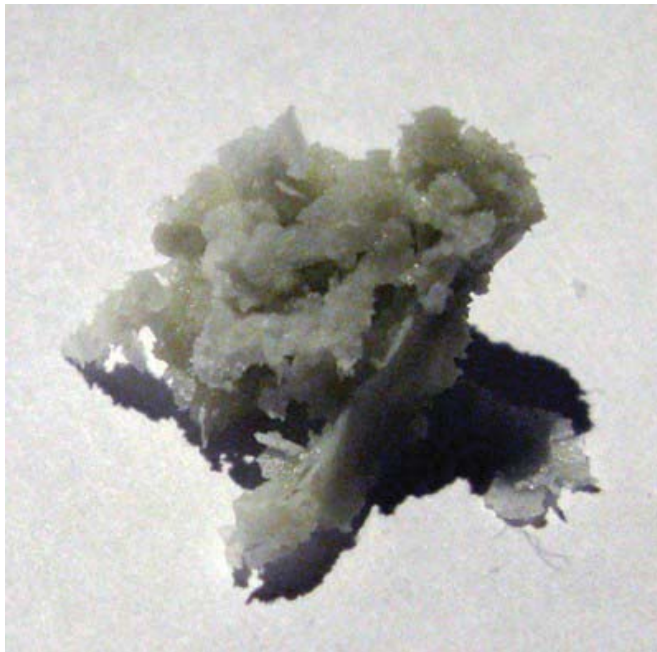


Photo of solid CO₂ at room temperature. This mastic-like substance is not "dry ice", which is the state we normally would consider solid CO₂ to be. Therefore we consider it to be in GANS-state (GAs + Nano + Solid state).

The solid CO₂ can be bent or manipulated like a chewing gum or a mastic. It has the temperature of the room.

Our CO₂ jell is measured at 2630 wavelength of the spectrum, where the asymmetric stretch is normally predicted at 2640 cm⁻¹ (after ref. science.widener.edu), so an almost perfect match.

More information and more spectroscopic graphs are given in a new paper of Ir. M.T. Keshe, titled: Production of energy through absorption of CO₂ and CH₄ from the environment and their conversion into a solution or solid and production of Oxygen by the use of compound and nano materials at room temperatures and pressures. (Dec. 2009).

"Direct Absorption of Carbon Dioxide and Methane Gases from the Environment and Their Conversion into Nano Solution and Nano Solid Matters and Production of Energy and Oxygen by the Use of Nano Compound at Ambient Temperature and Pressure"

by

M.T. KESHE

[[PDF](#)]

"Kt Liquid" Proprietary Catalyst --

Cola Plasma Reactor Generates Energy

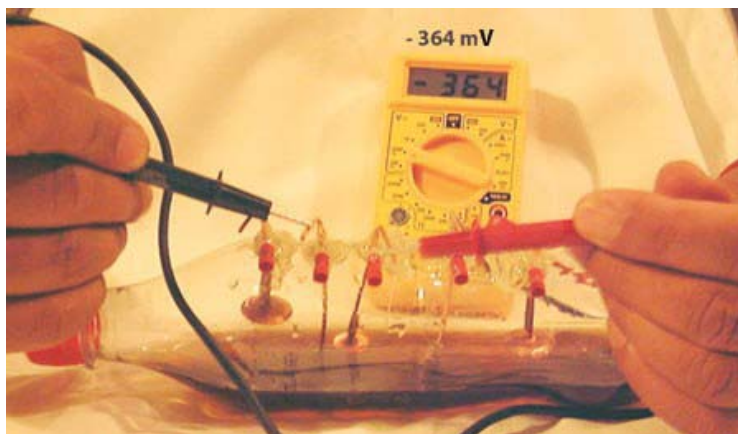
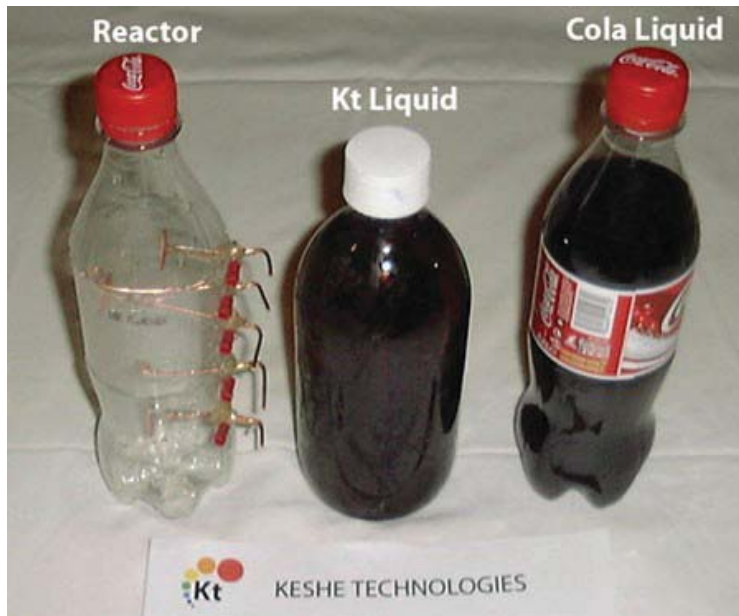
Several static and dynamic working prototypes confirms the new insights related to the PME's (Plasmatic Magnetic Energy) and the Keshe concept of **SEPMAF's (Specific Entangled Plasmatic Magnetic Fields)**. In the design and technology of our reactor systems, the same principles and methods as in the universal physics are developed and similar effects have been achieved.

One of most simple static plasma reactors is the Cola Bottle. This is equipped with a number electrodes, from two to five.

In this cola bottle reactor we achieve several outputs of voltage and current, we create atomic hydrogen and we process simultaneously deposits of atomic carbon on electrodes. The processing is not based on chemical interaction, like with acids. The working of these static reactors is completely different from as it happens in existing batteries. Current is for example also collected from electrodes which are not submerged in the liquid, thus is collected from pure plasma. Next it is noted that the reactor recharges itself automatically while other terminals generate voltage.

The main goal to perform these tests is proving that the carbon from the gasses inside the liquid can be collected and deposited on the electrodes. This is to demonstrate that the same principle can be utilized for separation of carbon from the exhaust gasses of cars and industry.

The acids contained in the cola drink are not essential to create current.



Other outcomes have been found with other combinations of the electrodes. Similar voltages and current are also reached with both electrodes only in the plasma area (upper part), thus not submerged in the liquid.

All photos were taken during the same test. After further processing the electrodes become black by the deposits of sp²'s and sp³. Sp² carbon (called 'graphene') is a ballistic (super-super) conductive material that can be used in micro- and nano-electronics. Sp³'s are diamond-like

structures. This all happens in a simple cola bottle, and not in complex systems with lasers and high pressure or vacuum!

Transparent testing: During demonstrations for potential partners they can provide themselves proper electrodes (and the cola liquid). They can use their own multi-meter to measure the outcome. They are allowed to videotape the demonstration. After demonstration the electrodes with carbon deposits will be given back for proper or independent testing. We are even prepared to agree on more stringent testing set-up, like the making of the reactor (proper glue, and gluing the electrodes in an empty reactor bottle provided by the potential partner himself) in their presence.

The proof of concept shown by the processes in these static reactors when applied in dynamic reactors deliver a much higher electrical outcome, able to deliver electricity for various applications, such as for households, villages, cars, electronics, machines, industry, lighting and industrial processing.

ENERGY TECHNOLOGY

This web page gives a new insight into the energy production capabilities of the systems.

The technology behind the development of this reactor goes back to basic understanding of the laws of physics.

The concept of creation of energy for this reactor is on the basis of the understanding of the cooperation, interaction and application of the atomic structure of the gases and matters up on each other.

The principal of the behavior of gases and liquids in the environment has been studied and catalogued in detail over the past decades. This is an important factor in development of any energy system, which has to be portable and light, but at the same time flexible, energetic and functional for it to be used for its merit in any system. This being used for power production, gravity or anti-gravity, shielding and medical use and so forth.

For this system to be able to take advantage of above criteria it is important to use Hydrogen as the primary catalyst.

The use of the system as an Energy source

This system is a fully integrated Electro-Nuclear-Magnetic power generator.

The system, at its core, will be a creator of magnetic field forces that man is used to as part of the magnetic fields of the earth. The unit generates magnetic fields that can pass through tissues and atoms without affecting their characteristics.

Magnetic fields created by planets are called the Passive Magnetic Field Forces (PMF). These

properties are what the whole universe uses to move moons, planets, stars and the galaxies.

In utilizing these forces and technology available through this system, electric energy can be created using hydrogen as its fuel.

The creation of electric energy in this reactor is achieved through the simple process of hydrogen ionization. Elaborate systems have been developed to tap into this process during its interactions with other matters in the core of the reactor.

The hydrogen supplied for this purpose is of a natural form, which can be realized from water or the atmosphere through already established, known technologies.

The Keshe Electric Generator

The most important actual systems for the production of electricity heat up water to create steam, where the steam then will provoke the rotation of a turbine which is connected to a magnet. This magnet rotates in coil structures.

These systems produce a lot of negative waste effects.

We can simplify the generation of electricity by the new Keshe generators which will contain only low, short term, nuclear sources. These generators will produce electricity over a long time, since the basic interactions are self-sustaining.

This is one of the concepts of a Keshe generator. A spherical self-rotating reactor core spins inside a set(s) of coils. On the reactor-body additional magnets can be mounted.

These electric generators can be installed on the locations where current is needed.

HYDROGEN

Hydrogen gas at an atomic and molecular level has some fascinating properties. That, if they are used for the right purpose at the right time in the right combination, this element will provide and facilitate most of the needs of systems for all above applications.

So, it does not matter in what form Hydrogen is used, when this gas is used in conjunction with other elements. Primary conditions can be created in the reactor that brings about all above desired effects in any system.

Hydrogen atoms by having one proton and one electron are the lightest element in the universe; it is one of the most common elements used for creation of plasma.

To create plasma there is a need to separate the electron from its nucleus by means of injecting enough energy into the atom so that the nucleus can be freed of its electron. This process is known as the ionization of hydrogen atoms.

Scientists have successfully achieved this principal for some time. If the excited electron, which is created, can be made to lose its energy in an appropriate way, it can return to its original state. Then the production of current and heat is made simple.

How these effects are created and used, are the principals behind the energy and gravity creation of this reactor. In this reactor, electrons are released from their nuclei with a method that has been known for some time by scientists, where the reaction is achieved by a very simple method of magnetic environment injection using natural hydrogen atoms. This is a very simple but effective method especially developed for the application in this reactor.

Then as other elements come in to play, the true nature of hydrogen will reveal its potency in this system as a whole as it has done in the universe.

Where, how, how much, when and the way these gases and matters are applied in the system, will create the desired effect that is required of the system at that time.

So the system can be a power generator, then with a slight change in one of the parameters of one of the matters the system will become a gravity machine. Then, by combining the two effects, one will have a system that not only generates energy, but it holds gravity and creates anti-gravity too.

With this system one cannot bring in to play the conventional present day fuels, and methods to create energy and magnetism.

In this system energy production is achieved simply by the normal creation of heat first, then gravity in the center of the core, with the help of the generation of magnetic fields through the right method of circulation and cooling system, within the reactor.

In the world of science, it has always been considered that the core of a planet possesses magnetic fields that cause it to rotate.

For the first time and through new understanding of the system of creation of gravitational forces in planets, it has been proven theoretically by Mr. M. T. Keshe that the center of the Earth possesses two magnetic fields rather than one.

In understanding the “double magnetic field” operation of the earths core, with the design of this new reactor, the gravitational system of the earth is replicated, leading to the creation and control of gravity in the center of the reactor.

In understanding the operation of this double magnetic field force, and incorporating it in the reactor that is being developed, new horizons are opened in the world of science.

For example, this leads to the creation of heat sufficient to generate a super heated head of steam at the outer boundaries of the system adequate to run the present PowerStation turbines if need be.

Where production of the electric current directly from the reactor core is achievable.

The system is fueled by hydrogen, so that there are no possibilities of radiation leakage or radioactive waste problems due to other effects in this system.

In present nuclear reactors, heat is collected using all sorts of moderators, cooling and blanketing in a concentrated way inside and outside the reactor's core. Then, the collected heat is fed through, to run a (steam) turbine creating energy.

Through the specific design of this reactor all the heat distribution, removal and circulation is done inside the reactor, without the need to remove heat from the boundary of the reactor in a concentrated method as has been done in the past.

This has been possible through the understanding of the natural method of heat dissipation as done in planets.

The concept behind this technology comes from the simple fact that in the Universe planets do not have cooling towers or exhaust pipes.

Efforts were made to look at the real method of energy creation in the planets in possession of internal heating systems, but cool enough that man can walk on their surface, like earth. Through a simple but effective way, this has been achieved in the core of this reactor, where heat is dissipated so that it will never reach the outer boundary of the reactor.

The advantage with this system is, that when heat is redistributed in a slightly simpler way, and not in a concentrated method as done in the present thermal nuclear reactors, totally different properties from the reactor with the same fuel can be attained.

These properties created in this system, are what the whole Universe uses to heat and move planets, stars and galaxies.

This system uses technology which can and will lead to fusion, semi-fusion and fission if required.

All this is achieved by using a reactor, which has in its core no valves or screws, and as in the center of planets, requires a very small amount of hydrogen.

*** electricity-production400

*** simplelectricity

WO2008113393
EP1770715
MICRO PLASMA REACTOR

[[PDF](#)]

Inventor: TAVAKOLI KESHE MEHRAN

Abstract -- A plasma reactor for the creation of energy is disclosed, which comprises of several technical means (wall, seal, ort/gate, outcome), and which contains materials from which at least one sub-quantity being radioactive and/or being able to be transformed in a radioactive isotope during the internal process, other materials from which at least one sub-quantity being an inert gas and/or being able to be transformed in an inert gas or in inert gas vapour during the internal process, other materials from which at least one sub-quantity being a atomic or molecular metallic material and/or being able to be transformed in a atomic or molecular metallic material, in metallic gas or in metallic vapour during the internal process, and other materials from which at least one sub-quantity is hydrogen and/or being able to be transformed in a atomic or molecular hydrogen, during the internal process, and where upon the sealing of said chamber said materials, a controllable interaction process - called the initial dynamic process - of repositioning the plasmatic magnetic energy fields of the introduced elements starts, where a number of the dynamic actions between them lead to the creation of new plasmatic magnetic energy fields, like in atomic, plasmatic and molecular level, and where the interaction between at least two of them simultaneously lead to the fragmentation of existing plasmatic energy fields. This leads to creation of current and energy from the reactor, and where from these fragmentations can be collected useful energy output. These self-sustaining reactors can be build in in many objects and machines.

Fig. 1

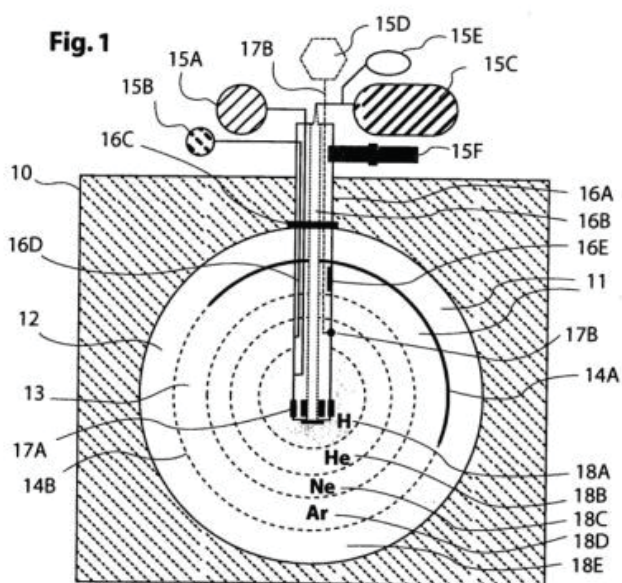
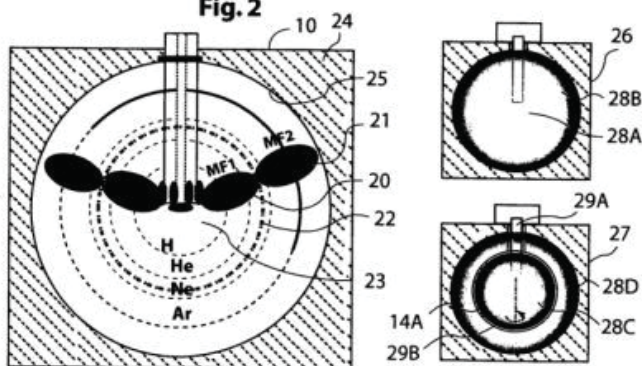


Fig. 2



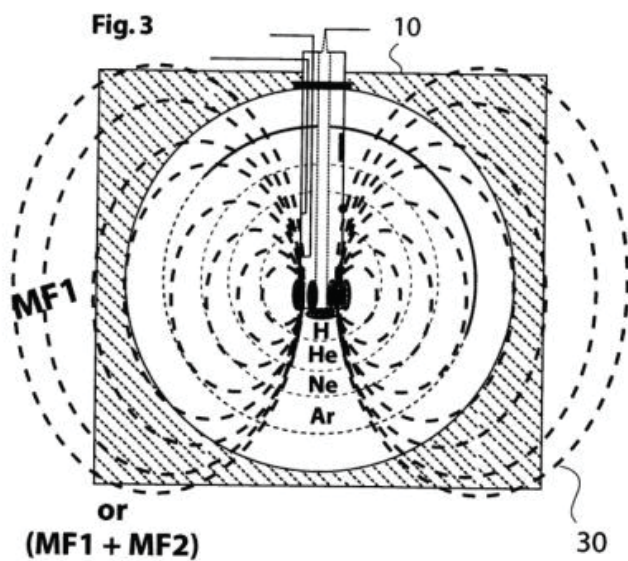


Fig. 4

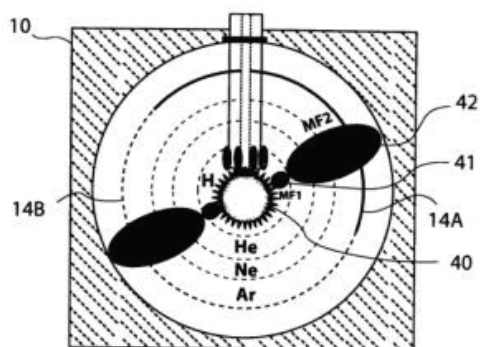


Fig. 5

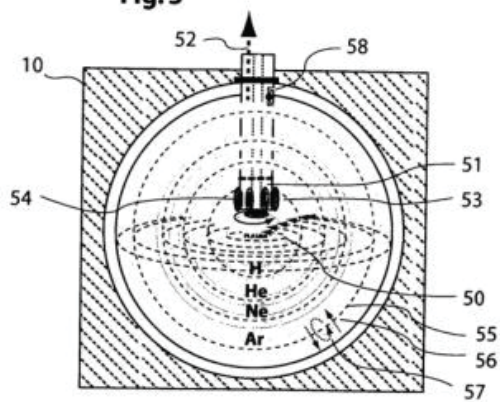


Fig. 6

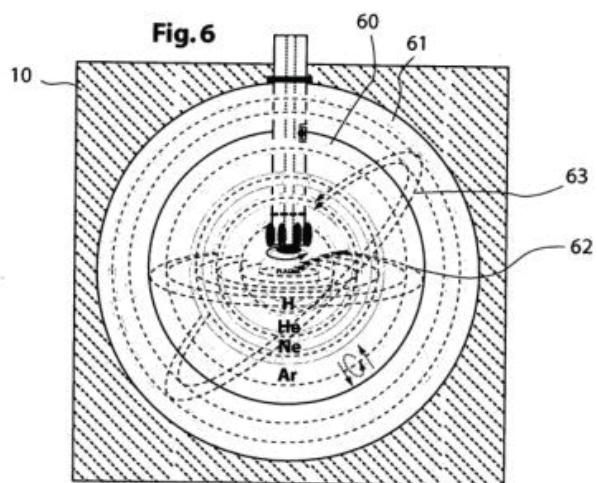


Fig. 7

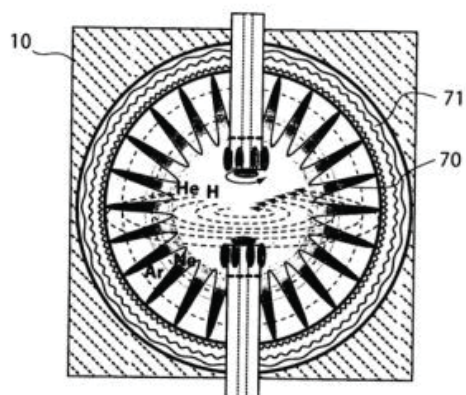
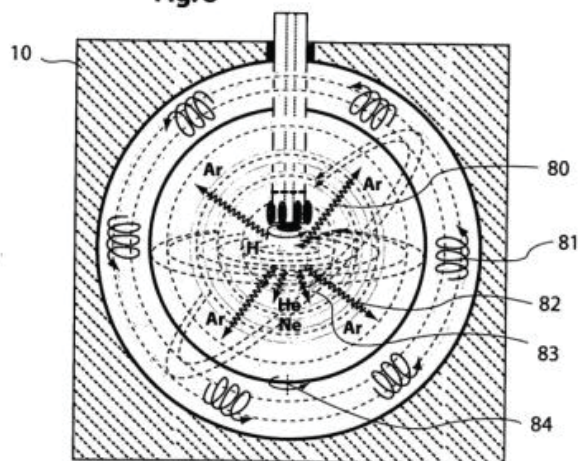


Fig. 8



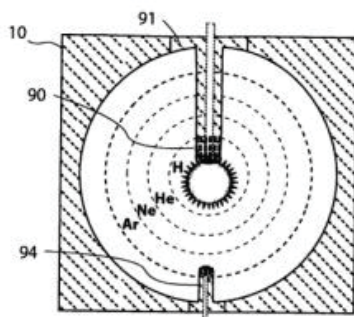


Fig. 9

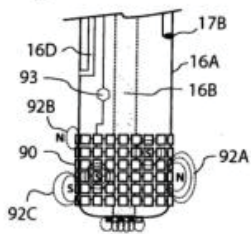


Fig. 10

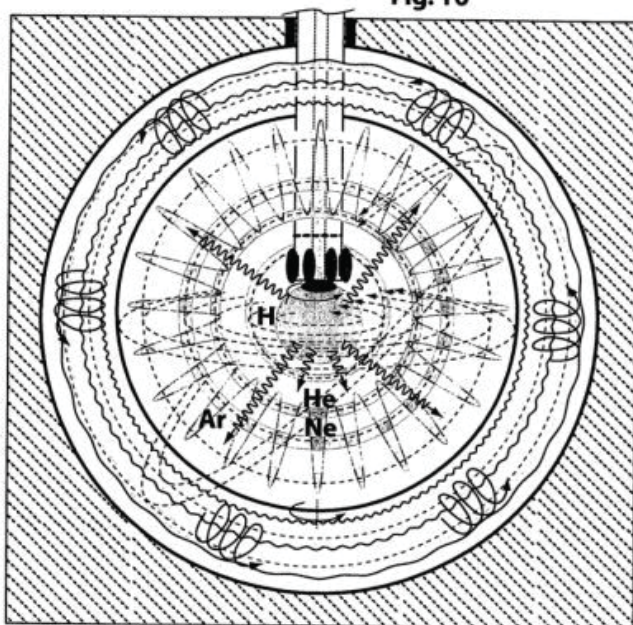


Fig. 11

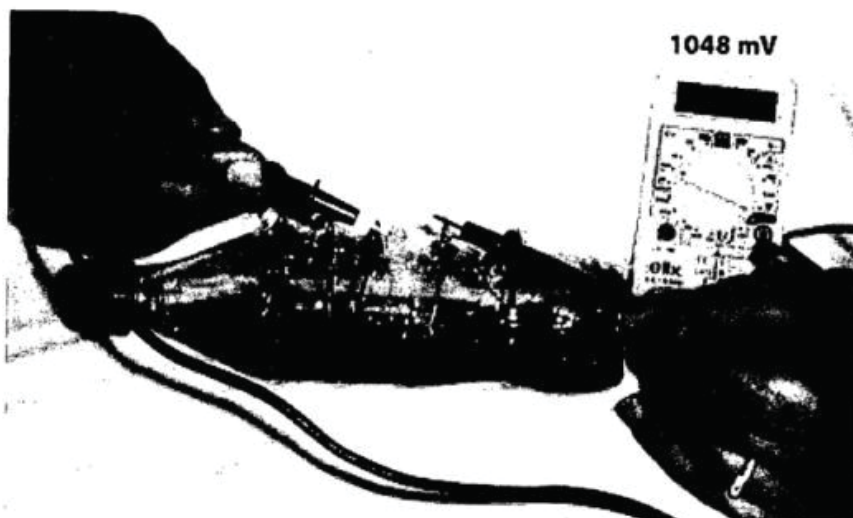


Fig. 12

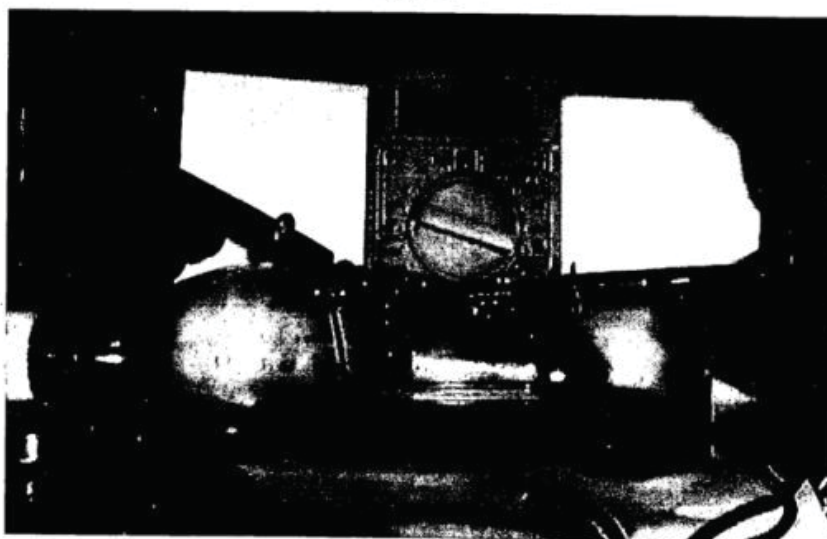
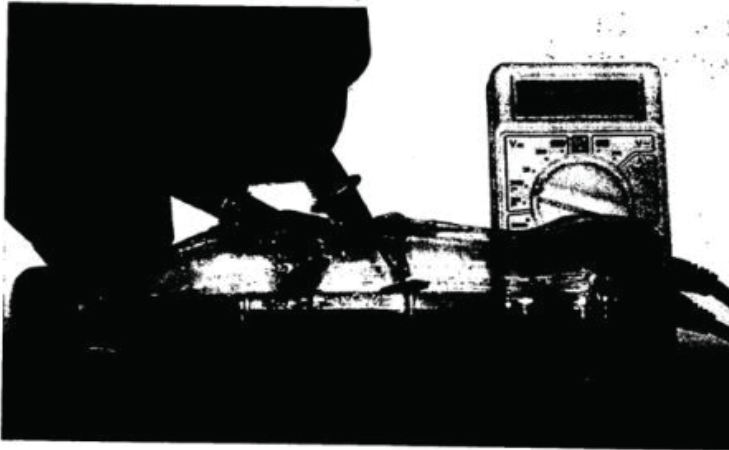


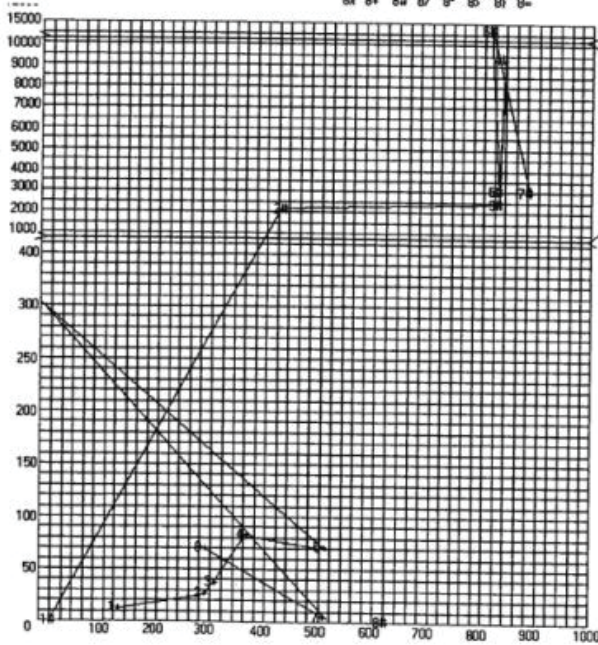
Fig. 13



Values of current and voltage in respect to Terminal
V in mV and A in Micro amps 1 and 1A
and 2 and 3

1	1A	2	2A	3	3A	4	4A
1X	1+	1#	1/	1*	1>	1)	1=
2x	2+	2#	2/	2*	2>	2)	2=
3x	3+	3#	3/	3*	3>	3)	3=
4x	4+	4#	4/	4*	4>	4)	4=
5x	5+	5#	5/	5*	5>	5)	5=
6x	6+	6#	6/	6*	6>	6)	6=
7x	7+	7#	7/	7*	7>	7)	7=
8x	8+	8#	8/	8*	8>	8)	8=

Fig. 14



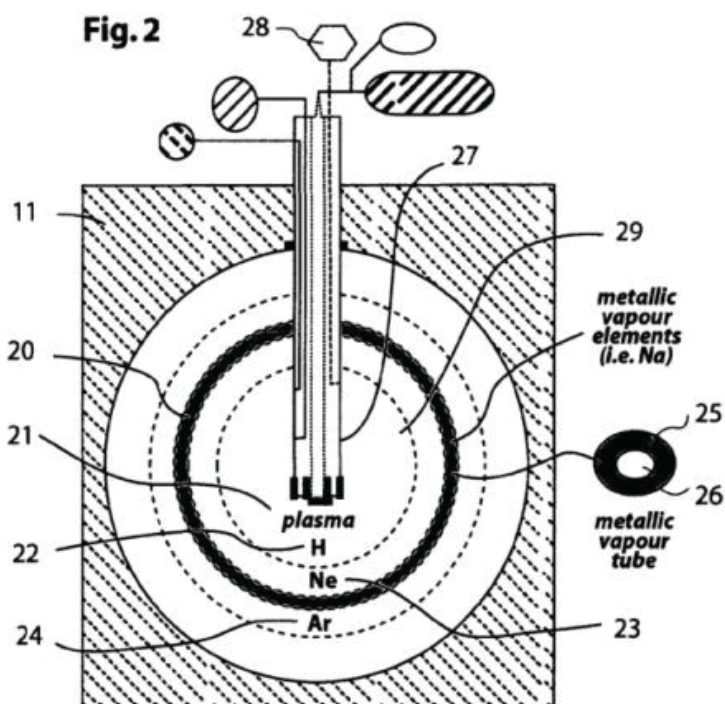
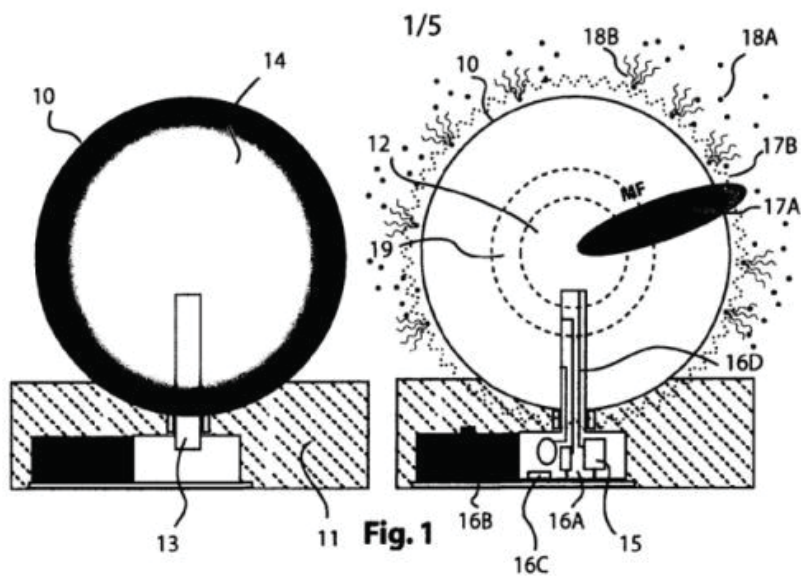
WO2008113392
EP1770717

GRAVITATIONAL AND ENERGY SYSTEM

[[PDF](#)]

Inventor: TAVAKOLI KESHE MEHRAN

Abstract -- A new method, process and technology is described how introduced materials can self-generate plasmatic conditions, plasma and plasmatic magnetic energy fields in presence of ionization conditions and at room temperature and normal atmospheric conditions. This initial plasma condition - including the generation of voltage and current - can be enhanced by adding motion means. Then more turbulence, rotation, compressive and heating of a gaseous matter is created in a reactor by at least one central rotative magnetic field with the purpose of creating plasmatic conditions leading to the creation various magnetic fields where at least the interaction of two magnetic field would lead to the creation of at least one gravitational force phenomena. In a reactor-embodiment a chain of energetic events is created via a rotative magnetic initiation of a basic ionization of a gas (i.e. hydrogen) which then triggers a controllable chain of energy transfers (Scintillation) to the next following layer(s) of introduced gasses (i.e. He, Ne, Ar, Kr, Xe), of ail other introduced elements of the periodic table (i.e. Li, Be, K, Ca, Ti,... Pt, etc.) and/or their introduced molecule combinations (i.e. a vapor). A central colums has magnetic means to start the process. Various concepts, applications and products are disclosed, such as space travel and atomic welding.



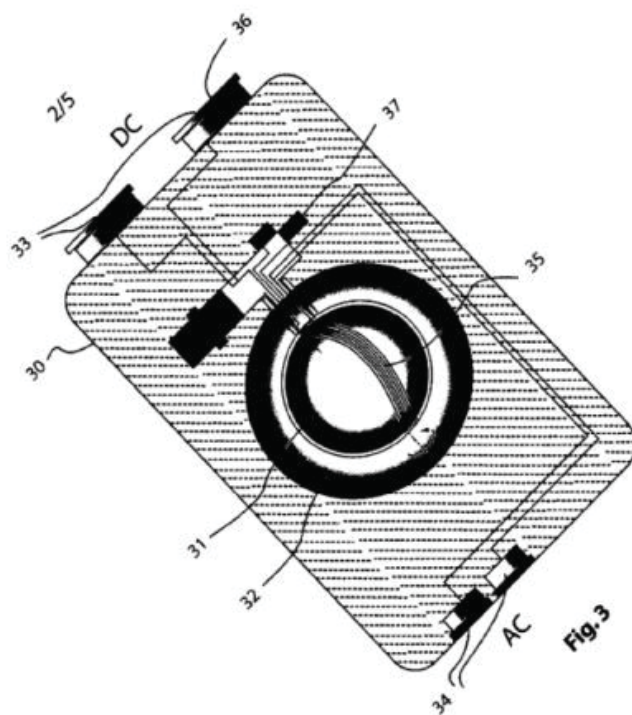




Fig.4



Fig.5

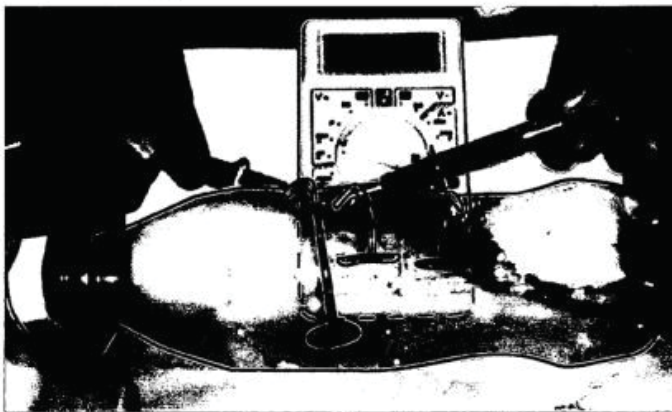


Fig.6



Fig.7

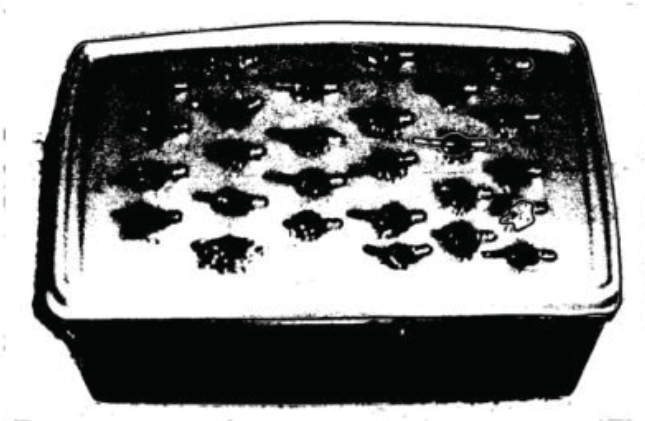


Fig.8

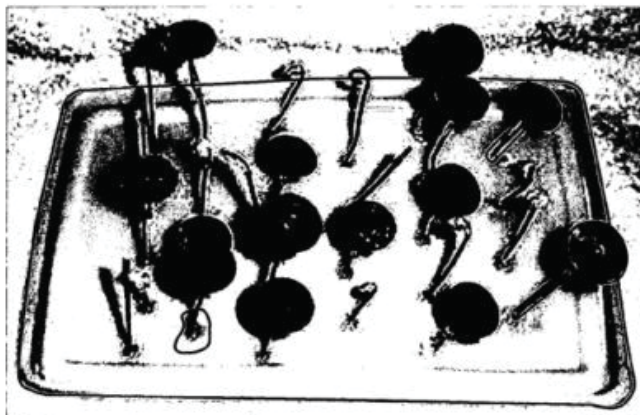


Fig.9

D. MENDELEEF Aether

An Attempt Towards A Chemical Conception Of The Ether

by

Professor D. Mendeleeff

Translated from the Russian by George Kamensky (Imperial Mint, St. Petersburg)

Longmans, Green & Co, NY (1904)

In his *Dictionnaire Complet*, P. Larousse defines the ether as ‘an imponderable elastic fluid, filling space and forming the source of light, heat, electricity, etc.’ This is laconic, but sufficient to raise some misgivings in the mind of a thoughtful man of science. He is obliged to admit, in the ether, the properties of a substance (fluid), while at the same time, in order to explain in some way the transmission of energy through space by its motion, the ether is assumed to be an all-pervading ‘medium’. Moreover, in order to explain the phenomena of light, electricity, and even gravity, this medium is supposed to undergo various disturbances (perturbations) and changes in its structure (deformation), like those observed in solids, liquids and gases. If the fluid medium permeates everything and everywhere, it cannot be said to have weight, just as the ponderability of air could not be recognized before the invention of the air pump. Yet the ether must have weight, because, since the days of Galileo and Newton, the quality of gravitation or of weight forms a primary property of substances. From various considerations Lord Kelvin came to the conclusion that a cubic meter of ether should weigh about and not less than 0.000,000,000,000,000,1 gram, while a cubic meter of the lightest gas, hydrogen, weighs 90 grams under the atmospheric pressure. The above-mentioned misgivings of the thoughtful scientist in his most plausible endeavors to ascribe a certain weight or mass to the ether, for the question naturally arises: At what pressure and temperature will this weight be proper to ether? For at infinitely small pressures or exceedingly high temperatures steam or hydrogen would have as small a density as that given by Lord Kelvin for the ether. And as regards the density of the ether in interplanetary space, neither steam nor hydrogen would have a measurable density in these regions, notwithstanding the extreme cold, for the pressure would be infinitely small. Theoretically, space may be supposed to be filled with such rarified residues of vapors and gases. And this view even corresponds with Kant’s and LaPlace’s and other theories, which strive to explain the unity of plan in the creation of the heavenly bodies. It also accounts for the uniformity of the chemical composition of the entire universe, demonstrated by the spectroscope, as it gives a means, through the agency of such ether, of interchange between the heavenly bodies. One of the objects of an investigation into the elasticity or compressibility of gases under low pressure, undertaken by me in the 1870s, was to trace, as far as the then existing methods of measuring low pressures permitted, the changes proceeding in gases under low pressures. The discrepancies from Boyle’s law observed (by me and M. Kirpichnikoff, 1874) for all gases, and subsequently confirmed by Ramsay and others (although still denied by some investigators),

indicate a certain uniformity in the behavior of all gases and a tendency in them towards a certain limiting expansion at low pressures, just as there is a limit to compression (liquefaction and the critical state). But determinations of very low pressures are accompanied by insurmountable difficulties. It proved practically impossible to measure, with any degree of accuracy, pressures under tenths of a millimeter of mercury, and this is far too large a figure for such rarified media as are supposed to exist at an elevation of even 50 kilometers above sea level. Hence the conception of the ether as a highly rarified atmospheric gas cannot so far be subjected to experimental investigation and measurement, which alone can direct the mind in the right direction and lead to reliable results.

But, beyond this, the conception of the ether as a limiting state of expansion of vapors and gases cannot sustain even the most elementary analysis, for ether cannot be understood otherwise than as an all-pervading ubiquitous substance, and this is not the property of either gases or vapors. Both the latter are liquefiable under pressure, and cannot be said to permeate all substances, although they are widely distributed in nature, even in meteorites. Moreover -- and this is the most important -- they vary infinitely in their chemical nature and in their relations to other substances, while the ether, as far as is known, is invariable. Owing to the variety of their chemical properties, all vapors and gases should react differently on the bodies which they permeate if they were components of the ether.

Before proceeding further, I think it necessary to justify the chemical views here and elsewhere brought into play. In the days of Galileo and Newton it was possible, although difficult, to conceive ether apart from them. But now it would be contrary to the most fundamental principles of natural science, for chemistry, since Lavoisier, Dalton and Avogadro Gerhardt, has acquired the most sacred rights of citizenship in the great company of the natural sciences, and by placing the mass (weight) of a substance among its paramount conceptions it has followed the path indicated by Galileo and Newton. Moreover, chemistry and its methods alone have promoted in science a desire to apprehend bodies and their phenomena in their ultimate relations, through a conception of the reaction of their infinitely small parts or atoms which may in fact be regarded as indivisible individuals, having nothing in common with the mechanically indivisible atoms of the ancient metaphysicians. There are many proofs of this; it will suffice to mention the fact that the atoms of modern science have often been explained by vortex rings, that there was formerly a strong inclination to conceive the chemical atoms as built up of themselves, or of a 'primary matter', and that recently, especially in speaking of the radioactive substances, a division of chemical atoms into yet smaller 'electrons' begins to be recognized; all of which would be logically impossible were the atom regarded as mechanically indivisible. Chemically the atoms may be likened to the heavenly bodies, the stars, sun, planets, satellites, comets, &c. The building up of molecules from atoms, and of substances from molecules, is then conceived to resemble the building up of systems, such as the solar system, or that of twin stars or constellations, from these individual bodies. This is not a simple play of words in modern chemistry, nor a mere analogy, but a reality which directs the course of all chemical research, analysis, and synthesis. Chemistry has its own microscope for investigating invisible regions, and being an archi-real science it deals all the time with its invisible individualities without considering them mechanically indivisible. The atoms and molecules which are dealt with in all provinces of modern mechanics and physics cannot be other than the atoms and molecules defined by chemistry, for this is required by the unity of science. And therefore the

metaphysicians of the present day should, for the advancement of knowledge, regard atoms in the same sense as that in which they are understood by natural science and not after the manner of the ancient metaphysicians of the Chinese or Greek schools. If the Newtonian theory of gravity revealed the existence of forces acting at infinitely great distances, the chemistry of Lavoisier, Dalton and Avogadro Gerhardt, on the other hand, disclosed the existence of forces of immense power acting at infinitely small distances, and transmutable into all other forms of energy, mechanical and physical. Thus all the present-day fundamental conceptions of natural science -- and consequently the conception of the ether -- must necessarily be considered under the combined influence of chemical, physical, and mechanical teachings. Although skeptical indifference is prone to discern only a 'working hypothesis' in the conception of the ether, yet the earnest investigator, seeking the reality of truth, and not the image of fantasy, is forced to ask himself what is the chemical nature of the ether.

Before endeavoring to give an answer respecting the chemical nature of ether, I think it necessary to state my opinion regarding the belief held by some in the unity of the substance of the chemical elements and their origin from one primary form of matter. According to this view, ether consists of this primary matter in an unassociated form, that is, not in the form of the elementary atoms or molecules of substances, but as the constituent principle out of which the chemical atoms are formed. This view has much that is attractive. The atoms are regarded as proceeding from primary matter in the same way as celestial bodies are sometimes represented as being formed from disunited bodies, such as cosmic dust, etc. The celestial bodies so formed remain surrounded by the cosmic dust, etc., from which they took their origin. So also the atoms remain in the midst of the all-pervading and primary ether from which they took their origin. Some persons assume also that atoms can be split up into their dust or primary matter, just as comets break up into falling stars; and that, as the geological changes of the earth or the building up and dissociation of heavenly bodies proceed before our eyes, so also do the atoms break up and form again in the silence of their eternal evolution. Others, without denying the possibility of such a process in the exceptional rare cases, consider the world of atoms to have been established once for all, and do not admit the possibility of decomposing the atom into its primary matter, or of forming new atoms of any chemical element from this primary matter by experimental means. In a word, they regard the process of the creation of atoms as finite and not subject to repetition, while they consider the ether as the residue remaining after the formation of atoms. This view need not be considered here, it being solely the fruit of imagination and unproved by any experimental investigation. But the former theory of a progressive evolution of the substance of atoms cannot be passed unnoticed by chemistry, for fundamental principles of this science are the indestructibility of matter and the immutability of the atoms forming the elements. If ether were producible from atoms and atoms could be built up from ether, the formation of new unlooked-for atoms and the disappearance of portions of the elements during experiment would be possible. A belief in such a possibility has long been held in the minds of many by force of superstition; and the more recent researches of Emmens to convert silver into gold, and those of Fittica (1900) to prove that phosphorus can be converted into arsenic, show that it yet exists. In the 50 years during which I have carefully followed the records of chemistry, I have met with many such instances, but they have always proved unfounded. It is not my purpose here to defend the independent individuality of the chemical elements, but I am forced to refer to it in speaking of the ether, for it seems to me that, besides being chemically invalid, it is impossible to conceive of an ether as a primary substance, because such a substance should have some mass or

weight and also chemical relations -- mass in order to explain the majority of phenomena proceeding at all distances up to the infinitely great, and chemical relations in order to explain those proceeding at distances infinitely small or commensurable with the atoms. If the question were restricted to the ether which fills space and serves as a medium for the transmission of energy, it would in a way be possible to limit oneself to the supposition of mass without reference to its chemical relations and even to consider the ether as a primary matter, Just as the mass of a planet may be conceived without regarding its chemical composition. But such an indifferent, indefinite ether loses all sense of reality and awakens the misgivings of the earnest investigator, directly he realizes that it must permeate all substances. The necessity of an easy and perfect permeation of all bodies by the ether has to be admitted, not only for the comprehension of many physical phenomena (such as those of optics), but also owing to the great elasticity and rarity of the ethereal substance, the atoms of which are always conceived as being far more minute than the atoms and molecules of the known chemical substances. Moreover, this permeability of ether of all bodies explains why it cannot be isolated from substances, which indeed behave in respect to ether like a sieve to water or air. The capacity of the ether to penetrate all substances may, however, be regarded as the ideal of the diffusion of gases through metals and other diaphragms. Hydrogen, which has a small atomic weight and is the lightest of all known gases, not only diffuses more rapidly than any other gas, but also has the faculty of penetrating through walls of such metals as platinum and palladium, which are impervious to other gases. This property is due, not only to the rapidity of motion of the molecules of hydrogen, closely connected with its small density, but also to a chemical faculty of the same kind as exhibited in the formation of metallic hydrides, of solutions, alloys and other indefinite compounds. The mechanism of this penetration may be likened (at the surface of the body penetrated) to the solution of a gas in a liquid, that is, to the gaseous particles leaping into the interstices between the particles of the liquid with a retardation of their motion (a partial liquefaction of the gas) and a bringing into harmony of the motion of both kinds of particles. The condensed gas absorbed at the surface of contact travels in all directions through the body, and diffuses from one layer to another until it entirely permeates it. The possibility of gaseous hydrogen acting thus is evident from the fact that even gold diffuses through solid lead under the same force. At length, at the opposite surface of the body penetrated, the condensed gas will find it possible to escape into greater freedom, and will continue to pass in this direction until its degree of concentration becomes the same on both sides. When this takes place it does not set up a state of rest, but one of mobile equilibrium, that is, equal numbers of molecules or atoms will escape and leap in at both sides. If, as it must, ether has the faculty of permeating all substances, it must be even lighter and more elastic (greater vis viva) than hydrogen, and, what is most important, must have less capacity than hydrogen to form chemical compounds with the bodies it permeates. Compounds are characterized by the fact that the diverse atoms in them form systems or molecules, in which the different elements are in compatible, harmonious motion. We must therefore suppose that such a state of harmonious motion of, for instance, hydrogen and palladium, is actually set up in those atoms of hydrogen which permeate the palladium, and that in so doing it forms with the palladium some compound (either Pd_2H or another) which easily dissociates when heated. Hence it seems to me that the atoms of ether are so void of this faculty of forming compounds (which is already weak in hydrogen) that such compounds dissociate at all temperatures, and that therefore nothing beyond a certain condensation among the atoms of substances can be looked for in the ether.

Eight years ago, it would have been most arbitrary to deny the existence, in the substance or atoms of ether, of the faculty of forming any compounds with their chemical elements, for in those days all the known elements were, directly or indirectly, capable of entering into mutual combination. But in 1894 Lord Rayleigh and Professor Ramsay discovered argon, and defined it as the most inactive element; this was followed by the discovery of helium, the existence of which Lockyer had predicted by its spectrum as a solar element, and subsequently by the separation of neon, krypton and xenon from air. None of these five new gases have yet given any definite compounds, although they clearly evince the faculty of solution, i.e., of forming definite, easily dissociated compounds. Thus we have now every right to say that the ether is unable to form any stable compounds with other chemical atoms, although it permeates all substances.

Hence *the ether may be said to be a gas, like helium or argon, incapable of chemical combination*. This definition of the ether as a gas, signifies that it belongs to the category of the ordinary physical states of matter, gaseous, liquid or solid. It does not require the recognition of a peculiar fourth state beyond the human understanding (Crookes). All mystical, spiritual ideas about ether disappear. In calling ether a gas, we understand a 'fluid' in the widest sense; an elastic fluid having no cohesion between its parts. Furthermore, if ether be a gas, it has weight; this is undisputable, unless the whole essence of natural science, from the days of Galileo, Newton, and Lavoisier, be discarded for its sake. But since ether possesses so great a penetrative power that it passes through every envelope, it is, of course, impossible to experimentally determine its mass in a given amount of other substances, or the weight of a given volume of ether. We ought, therefore, not to speak of the imponderability of ether, but only of the impossibility of weighing it.

The preceding remarks are in exact accordance with the generally accepted conception of ether. The only addition made is to ascribe to ether the properties of a gas, like argon and helium utterly incapable of entering into true chemical combination. This point lies at the basis of our investigation into the chemical nature of ether, and includes the following two fundamental propositions: (1), that the ether is the lightest (in this respect ultimate) gas, and is endowed with a high penetrating power, which signifies that its particles have, relatively to other gases, small weight and extremely high velocity, and (2), that ether is a simple body (element) incapable of entering into combination or reaction with other elements or compounds, although capable of penetrating their substance, just as helium, argon, and their analogues are soluble in water and other liquids.

The argon group of gases and the periodic system of the elements have such a close bearing upon our further consideration of the chemical nature of ether that it behooves us to look at them more closely.

When in 1869 I first showed the periodic dependence of the properties of the elements upon their atomic weights, no element incapable of forming definite compounds was known, nor was the existence of such an element even suspected. Therefore the periodic system was arranged by me in groups, series, and periods, starting with group I and series I, with hydrogen as the lightest and least dense of all the elements. It never occurred to me that hydrogen might be the starting point of a system of elements. Guided by this system, I was able to predict both the existence of several unknown elements and also their physical and chemical properties in a free and

combined state. These elements, gallium, scandium, and germanium, were subsequently discovered by Lecoq de Boisbaudran, Nilson, and Winkler respectively. I made these predictions by following what is known in mathematics as a method of interpolation, that is, by finding intermediate points by means of two extreme points whose relative position is known. The fact of my predictions having proved true confirmed the periodic system of elements, which may now be considered as an absolute law. So long as the law remained unconfirmed, it was not possible to extrapolate (i.e., to determine points beyond the limits of the known) by its means, but now such a method may be followed, and I have ventured to do so in the following remarks on the ether, as an element lighter than hydrogen. My reason for doing this was determined by two considerations. In the first place, I think I have not many years for delay; and, in the second place, in recent years there has been much talk about the division of atoms into more minute electrons, and it seems to me that such ideas are not so much metaphysical as metachemical, proceeding from the absence of any definite notions upon the chemism of ether, and it is my desire to replace such vague ideas by a more real notion of the chemical nature of the ether. For until some one demonstrates either the actual transformation of ordinary matter into ether, or the reverse, or else the transformation of one element into another, I consider that any conception of the division of atoms is contrary to the scientific teaching of the present day; and that those phenomena in which a division of atoms is recognized would be better understood as a separation or emission of the generally recognized and all-permeating ether. In a word, it seems to me that the time has arrived to speak of the chemical nature of the ether, all the more so since, so far as I know, no one has spoken at all definitely on this subject. When I applied the periodic law to the analogs of boron, aluminum, and silicon, I was 33 years younger than now, and I was perfectly confident that sooner or later my prediction would be fulfilled. Now I see less clearly and my confidence is not so great. Then I risked nothing, now I do. This required some courage, which I acquired when I saw the phenomena of radioactivity. I then saw that I must not delay, that perhaps my imperfect thoughts might lead some one to a surer path than that which was opened to my enfeebled vision.

First, I will treat of the position of helium, argon, and their analogs in the periodic system; then of the position of ether in this system; and conclude with some remarks on the probable properties of ether according to the position it occupies in the periodic system.

When, in 1895, I first heard of argon and its great chemical inertness, I doubted the elementary nature of the gas, and thought it might be a polymeride of nitrogen, N_3 , just as ozone, O_3 , is a polymeride of oxygen, with the difference that, while ozone is formed from oxygen with the absorption of heat, argon might be regarded as nitrogen deprived of heat. In chemistry nitrogen was always regarded as the type of chemical inertness, i.e., of an element which enters into reaction with great difficulty, and if its atoms lost heat in becoming condensed by polymerization from N_2 to N_3 , it would form a still less active body; just as silica, which is formed from silicon and oxygen with the evolution of heat, is more inert than either of them separately. Berthelot subsequently published a similar view on the nature of argon, but I have now long discarded that and consider argon to be an independent element, as Ramsay held it to be from the very beginning. Many reasons induced me to adopt this view, and chiefly the facts that (1) the density of argon is certainly much below 21, namely about 19, that of H being 1, while the density of N_3 would be about 21, for the molecular density of $N_3 = 14 \times 3 = 42$ and the density would be half this; (2) helium, discovered by Ramsay in 1895, has a density of about 2 referred to hydrogen,

and exhibits the same chemical inactivity as argon, and in its case this inactivity can certainly not be due to a complexity of its molecule; (3) in their newly discovered neon, krypton, and xenon, Ramsay and Travers found a similar inactivity which, in these cases also, could not be explained by polymerization; (4) the independent nature of the separate spectra of these gases, and the invariability of these spectra under the influence of electric sparks, proved that they belong to a family of elementary gases different from all other elements, and (5) the graduation and definite character of the physical properties in dependence upon the density and atomic weight further confirm the fact of their being simple bodies, whose individuality, in the absence of chemical reactions, can only be affirmed from the constancy of their physical features. An instance of this is seen in the boiling points (at 760 mm) or temperatures at which the vapor pressures equal the atmospheric pressure and at which the liquid and gaseous phases are co-existent:

	He	Ne	Ar	Kr	Xe
Atomic weight:	4	19.9	38	81.8	128
Observed density:	2	9.95	18.8	40.6	63.5
Observed boiling point:	-262	-239	-187	-152	-100

This recalls the halogen group:

	F	Cl	Br	I
Mol. Weight:	38	79.9	159.9	254
Vapor density:	19	35.5	80	127
Boiling point	-187	-34	+57.7	+183.7

In both cases the boiling point clearly rises with the atomic or molecular weight. When the elementary nature of the argon analogs and their characteristic chemical inactivity were once proved, it became essential that they should take their place in the periodic system of the elements; not in any of the known groups but in a special one of their own, for they exhibited new, hitherto unknown chemical properties, and the periodic system embraces in different groups those elements which are analogous in their fundamental chemical properties, although not in dependence upon these properties but upon their atomic weight, which apparently -- previous to the discovery of the periodic law -- stands in no direct relation to these properties. This was a critical test for the periodic law and the analogs of argon, but they both stood the test with perfect success; that is, the atomic weights, calculated from the observed densities, proved to be in perfect accordance with the periodic law.

Although I assume that the reader is acquainted with the periodic law, yet it may be well to mention that if the elements be arranged in the order of their atomic weights it will be found that similar variations in their chemical properties repeat themselves periodically, and that the order of the faculty of the elements to combine with other elements also corresponds with the order of their atomic weights. This is seen in the following simple example.

All the elements having an atomic weight of not less than 7 and not more than 85.5 fall into two series:

Li = 7.0 ~ Be = 9.1 ~ B = 11.0 ~ C = 12.0 ~ N = 14.0 ~ O = 16 ~ F = 19.0 ~
 Na = 23.0 ~ Mg = 24.3 ~ Al = 27.0 ~ Si = 28.4 ~ P = 31.0 ~ S = 32.1 ~ Cl = 35.5

Each pair of elements present a great similarity in their chief properties; this is especially marked in the higher saline oxides, which in the lower series are:

Na₂O ~ MgO ~ Al₂O₃ ~ SiO₂ ~ P₂O₅ ~ SO₃ ~ Cl₂O₇, or
 Na₂O, Mg₂O₂, Al₂O₃, Si₂O₄, P₂O₅, S₂O₆, Cl₂O₇.

Thus the atomic order of the elements exactly corresponds to the arithmetical order from 1 to 7. So that the groups of the analogous elements may be designated by the Roman ciphers I to VII: and when it is said that phosphorus belongs to Group V, it signifies that it forms a higher saline oxide P₂O₅. And if the analogs of argon do not form any compounds of any kind, it is evident that they cannot be included in any of the groups of the previously known elements, but should form a special zero group which at once expresses the fact of their chemical indifference. Moreover, their atomic weight should necessarily be less than those of group I: Li, Na, K, Rb, and Cs, but greater than those of the halogens, F, Cl, Br and I, and this a priori conclusion was subsequently confirmed by fact, thus:

Halogens	Argon analogs	Alkali metals
	He = 4.0	Li = 7.03
F = 19	Ne = 19.9	Na = 23.05
Cl = 35.5	Ar = 38	K = 39.1
Br = 79.95	Kr = 81.8	Rb = 85.4
I = 127	Xe = 128	Cs = 132.9

The five well-known alkali metals correspond to the newly discovered argon analogs, and the atomic weights of both exhibit the same common law of periodicity. But the halogens and alkali metals are the most chemically active among the elements, and are, moreover, of opposite chemical nature, the first being particularly prone to react with metals and the others with metalloids, the former appearing at the anode and the latter at the cathode. They must therefore stand at the two extremes of the periodic system, as in the scheme in **Figure 1**.

Figure 1

a vague notion that hydrogen might be preceded by some elements of less atomic weight, I dared not put forward such a proposal, because it was purely conjectural, and I feared to injure the first impression of the periodic law by its introduction. Moreover, in those days the question of the ether did not awaken much interest, for electrical phenomena were not then ascribed to its agency, and it is this that now gives such importance to the ether. But at the present time, when there can be no doubt that the hydrogen group is preceded by the zero group composed of elements of less atomic weights, it seems to me impossible to deny the existence of elements lighter than hydrogen.

Let us first consider the element in the first series of the zero group. It is designated by y . It will evidently exhibit all the fundamental properties of the argon gases. But first we must have an approximate idea of its atomic weight. To do this, let us consider the ratio of the atomic weights of two elements belonging to the same group in the neighboring series. Starting with $Ce = 140$ and $Sn = 119$ (here the ratio is 1.18), this ratio, in passing to the lower groups and series, increases constantly and fairly uniformly as the atomic weights of the elements under comparison decrease. But we will limit our calculation to the first and second series, starting with $Cl = 85.45$; for (1) we are exclusively concerned with the lightest elements, (2) the ratio of the atomic weights is more accurate for these elements, and (3) the small periods of the typical elements (which should include the elements lighter than hydrogen) terminate with chlorine. As the atomic weight of chlorine is 35.45 and that of fluorine 19.0, the ratio $Cl:F = 35.4:19.0 = 1.86$; so also we find:

Group

VII $Cl:F = 1.86$

VI $S:O = 2.00$

V $P:N = 2.21$

IV $Si:C = 2.37$

III $Al:B = 2.45$

II $Mg:Be = 2.67$

I $Na:Li = 3.28$

0 $Ne:He = 4.98$

This proves that the ratio in the given series distinctly and progressively increases in passing from the higher to the lower groups; and, moreover, that it varies most rapidly between the first and zero groups. It follows therefore that the ratio $He:y$ will be considerably greater than the ratio $Li:H$ which is 6.97, so that the ratio $He:y$ will be at least 10 and probably even greater. Hence, as the atomic ratio $He = 4.0$, the atomic weight of y will not be greater than $4.0/10 = 0.4$ and probably less. Such an analog of helium may perhaps be founding coronium, whose spectrum, clearly visible in the solar corona above (that is, further from the sun than) that of hydrogen, is simple like that of helium, which seems to indicate that it belongs to a gas resembling helium, which was also predicted from its spectrum by Lockyer. Young and Harkness independently observed the spectrum of this unknown element during the solar eclipse of 1869. It is characterized by a bright-green line at 531.7 uu, while helium is characterized by a yellow line, 587 uu. Nasini, Anderlini, and Salvadori think that they discovered traces of coronium in their observations on the spectra of volcanic gases (1893). And as the lines of coronium were also observed, even at distances many times the radius of the sun above its atmosphere and

protuberances, where the hydrogen lines are no longer visible, it is evident that coronium should have less density and atomic weight than hydrogen. Moreover, as the ratio of the specific heats (at a constant pressure and for a constant volume) of helium, argon, and their analogs gives reason for thinking that their molecules (i.e., the amount of matter occupying, according to Avogadro-Gerhardt's law, a volume equal to the volume of two parts by weight of hydrogen) contain only one atom (like mercury, cadmium and most metals), it follows that, if 0.4 be the greatest atomic weight of the element γ , its density referred to hydrogen should be less than 0.2. Consequently the molecules of this gas will, according to the kinetic theory of gases, move 2.24 times faster than those of hydrogen, and if, as Stoney (1894-1898) and Rostovsky (1899) endeavor to prove, the progressive motion of the molecules of hydrogen and helium be such that they can leap out of the sphere of earth's attraction, then a gas whose density is at least five times less than that of hydrogen could certainly only exist in the atmosphere of a body having as great a mass as the sun. However, this γ -coronium or some other gas with a density of about 0.2 cannot possibly be ether, its density being too great. It wanders, perhaps for ages, in the regions of space, breaks from the shackles of the earth and again comes within its sphere, but still it cannot escape from the regions of the sun's attraction, and there are many heavenly bodies of greater mass than the sun. But the atoms of ether must be of another kind; they must be capable of overcoming even the sun's attraction, of freely permeating all space, and of penetrating everything and everywhere. The element γ , however, is necessary for us to be able to mentally realize the lightest and therefore swiftest element, x , which I consider may be looked upon as the ether.

We have seen that, besides the ordinary groups of the chemically active elements, a zero group of chemically inactive elements must now be recognized for helium, argon, and their analogs. Thanks to Ramsay's exemplary researches, these elements are now tangible realities, authentic gases foreign to chemical association, that is, distinguished by their specific property of not being chemically attracted to each other or to other atoms even at infinitely small distances, and yet having weight, that is, subject to the law of attraction of mechanics, which has nothing in common with chemical attraction. There is some hope that gravity may in some way or another be explained by means of pressure or impact acting from all sides, but chemical attraction, which only acts at infinitely small distances, will long remain an incomprehensible problem. The problem of the ether is more or less closely connected with that of gravity, and gains in simplicity when all question of the chemical attraction of the atoms of ether is excluded, and this is accomplished by placing it in the zero group. But if the series of elements begins with series I containing hydrogen, the zero group has no place for an element lighter than γ , like ether. I therefore add a zero series, besides a zero group, to the periodic system, and place the element x in this zero series, regarding it (1) as the lightest of all the elements both in density and atomic weight; (2) as the most mobile gas; (3) as the element least prone to enter into combination with other atoms, and (4) as an all-permeating and penetrating substance. Of course, this is a hypothesis, but it is not one constructed for purely 'working' ends, but simply from a desire to extend the real periodic system of the known elements to the confines or limits of the lowest dimensions of atoms, which I cannot and will not regard in the light of simple nullity called mass.

Being unable to conceive the formation of the known elements from hydrogen, I can neither regard them as being formed from the element x , although it is the lightest of all the elements. I

cannot admit this, not only because no fact points to the possibility of the transformation of one element into another, but chiefly because I do not see that such an admission would in any way facilitate or simplify our understanding of the substances and phenomena of nature. And when I am told that the doctrine of unity in the material of which the elements are built up responds to an aspiration for unity in all things, I can only reply that at the root of all things a distinction must be made between matter, force, and mind; that it is simpler to admit the germs of individuality in the material elements than elsewhere, and that no general relation is possible between things unless they have some individual character resident in them. In a word, I see no object in following the doctrine of unity of matter, while I clearly see the necessity of recognizing the unity of the substance of ether and of realizing a conception of it, as the uttermost limit of that process by which all the other atoms of the elements were formed and by which all substances were formed from these atoms. To me this kind of unity is far more real than any conception of the formation of the elements from a single primary matter. Neither gravity nor any of the problems of energy can be rightly understood without a real conception of the ether as a universal medium transmitting energy at a distance. Moreover, a real conception of ether cannot be obtained without recognizing its chemical nature as an elementary substance, and in these days no elementary substance is conceivable which is not subject to the periodic law.

I will therefore, in conclusion, endeavor to show what consequences should follow from the above conception of the ether, from an experimental or realistic point of view, even should it never be possible to isolate or combine or in any way grasp this substance.

Although it was possible to approximately determine the atomic weight of the element y on the basis of that of helium, this cannot be repeated for the element x , because it lies at the frontier or limit, about the zero point of the atomic weights. Moreover, the analogs of helium cannot serve as a basis owing to the uncertainty of their numerical data. However, if the ratio of the atomic weights be $\text{Xe}:\text{Kr} = 1.56:1$; $\text{Kr}:\text{Ar} = 2.15:1$, and $\text{Ar}:\text{He} = 9.5:1$, we find that $\text{He}:x = 23.1:1$, or if $\text{He} = 4.9$, that the atomic weight of $x = 0.17$. This must be considered the maximum possible value. Most probably the atomic weight of x is far less, for the following reasons. If the gas in question be an analog of helium, its molecule will contain one atom, and therefore its density, referred to that of hydrogen, must be about half its atomic weight or $x/2$, where x is the atomic weight. In order to be able to permeate throughout all space, its density must be so small, compared with that of hydrogen, that its molecular motion would allow it to overcome the attraction, not only of the earth and sun, but also of all the stars, as otherwise it would accumulate about the largest mass and not fill all space. The velocity of the molecular motion is determined by the number of impinging particles and their *vis viva* is calculated according to the kinetic theory of gases, by an expression containing a constant divided by the square root of the density of the gas and multiplied by the square root of $(1 + at)$, which expresses the expansion of the gas by heat. In the case of hydrogen (density = 1) at $t = 0^\circ$, the mean velocity of the particles, calculated on the basis that a liter of hydrogen at 0° and 760 mm weighs about 0.09 grams, is 1843 meters/second, that of oxygen being 461 meters, for its density is 16 times that of hydrogen, i.e., $v = 1843 / 4 = 461$. Thus the velocity increases as the density becomes less and as the temperature becomes greater, but does not depend upon the number of molecules in a given volume; and if our gas have an atomic weight x and density (referred to hydrogen) $x/2$, then the velocity of its molecules will be:

$$(I) \quad v = 1843 \times \text{sq. rt. } 2(1 + at)/x$$

In this expression x is the unknown quantity, to find which we must know t and v , or the velocity required by the particles to escape from the sphere of the earth's sun's and stars' attraction, like the projectile in Jules Verne's 'Voyage to the Moon'.

As regards the temperature of space, this can only be regarded as the absolute zero by those who deny the material nature of the ether, for temperature in a perfect vacuum or a space devoid of matter is an absurdity, and a solid such as an aerolite or thermometer introduced into such space would alter the temperature, not by contact with the surrounding medium, but solely by radiation. But if space be filled with the substance of ether, it not only may have, but must, have its own temperature, which evidently cannot be absolute zero. Many methods have been tried to determine this temperature, but it is unnecessary to discuss them here. Suffice it to say that no one has found it less than -150° or above -40° ; as a rule, the limits are taken as -100° and -60° . It is hopeless to expect any definite or exact data on this subject, and probably the temperature varies in different localities owing to radiation being different in different parts of space. Moreover, the value of t between -100° and -60° has hardly any significance in an approximate evaluation of x , as only the maximum value of x can be calculated by the expression (I); for there can be no question of any exact value, all that is required being to obtain an idea of the order in which x stands among the elements. We therefore take $t = -80$; then if $a = 0.000367$,

$$(II) \quad v = 2191 / \text{sq. rt. } x, \text{ or } x = 4800000/v^2$$

where x is the atomic weight of the gaseous element required, referred to hydrogen, and v the velocity of motion of its particles at -80° in meters/second.

This velocity must now be determined. We know that a body thrown up in the air falls back to earth, and in doing so describes a parabola. The height of its flight increases as its initial velocity is made greater, and it is evident that this velocity might be such that the body would pass beyond the sphere of the earth's attraction, and fall on some other heavenly body, or rotate about the earth as a satellite by virtue of the laws of gravitation. It has been calculated that to do this the velocity of the body must exceed the square root of double the mass of the attracting body divided by the distance from its center of gravity to the point at which the velocity is determined. The mass of the earth is calculated in absolute units from the mean radius of the earth (= 6,373,000 meters) and the mean attraction of gravity at the surface of the earth (= 9.807 meters), for the attraction of gravity is equal to the mass divided by the square of the distance (in this instance, the square of the earth's radius), and therefore the mass of the earth -- 398.1012, and the velocity sought for must therefore exceed 1,190 meters /second. Hence, according to Formula II, the atomic weight of such a gas must be less than 0.038 to enable it to escape freely from the earth's atmosphere into space. All gases of greater atomic weight, not only hydrogen and helium, but even the gas y (coronium?), will remain in the earth's atmosphere.

The mass of the sun is approximately 325,000, if that of the earth is taken as unity. Hence the absolute magnitude of the sun's mass will be nearly 129.1018. The radius of the sun is 109.5 times greater than that of the earth, i.e., nearly 698.1016 meters. Hence only bodies or particles having a velocity of about 608,300 meters/second could escape from the surface of the sun.

According to formula II, the atomic weight of a gas x having such a velocity will not be half this figure. Hence the atomic weight and density of such a gas which, like the ether, permeates space, must at all events be less than this figure. This is inevitable because there are stars of greater mass than the sun. This has been proved by researches made on double stars.

The most exact data we now possess concern Sirius, whose total mass (including that of its satellites) is 3.24 times that of the sun. To determine this, it was necessary to investigate not only the relative motion of both stars, but also the parallax of this system. In the case of Sirius it was possible to determine the ratio of the masses of the two stars. This was found to be 2.05, so that the mass of one star is 2.20, and that of the other 1.04 times that of the sun. In the following cases, only the total mass of the two twin stars was determined relative to that of the sun:

a-Centauri = 2.0
 70-Ophiuchi = 1.6
 u-Cassiopeiae = 0.52
 61-Cygni = 0.34
 g-Leonius = 5.8
 g-Virginis = 32.7

The mass of B-Persei with its satellites is 0.67 times that of the sun, that of the star being twice that of its satellite. The triple star 40-Eridium has a mass 1.1 times that of the sun, the mass of the brightest star being 2.37 times that of the other two.

It appears, therefore, that although there are some stars which are greater, and some which are less, still the mass of the sun is nearly the average of that of the other stars. For our purpose we need only consider the stars of much greater mass than the sun. That of the double star g-Virginis has a common mass about 33 times that of the sun. There is no reason for thinking that this is the maximum, and it will therefore be safer to infer that there may be stars whose mass exceed 50 times that of the sun, but I do not think it likely that a larger mass than this is in the nature of things. To complete our calculation it is also necessary to know the radius of the stars, about which we have no direct data. However, the composition and temperature of the stars may give a clue. Spectrum analysis proves that the terrestrial chemical elements occur in the most distant heavenly bodies, and from analogy there seems no doubt that the general mass composition of these bodies is very similar in all cases; that is to say, that they are composed of a dense core surrounded by a less dense crust and an atmosphere which becomes gradually rarefied. Thus the composition of the stars probably differs but little from that of the sun. Only at the core can the density differ much from that of the sun, but this cannot greatly affect the average density. Neither can the temperature of the stars differ greatly from that of the sun. Moreover, a rise of temperature would tend to increase the diameter of the star, and this would decrease the value of the velocity required by the gaseous particles to escape from the sphere of attraction. It appears, therefore, that for the purposes of our calculation the average density of the large stars may be taken as nearly that of the sun, and therefore that the radius of a star whose mass is n times that of the sun will be $\sqrt[3]{n}$ times the radius of the sun. We now have all the data necessary for calculating the velocity required by gaseous particles to escape from the sphere of attraction of a star 50 times greater than the sun.

Its mass is $50.129 \cdot 10^{18}$ or nearly $65 \cdot 10^{29}$, and its radius nearly $698 \cdot 10^{6.3}$ sq. rt. of 50, or $26 \cdot 10^8$. Hence the velocity required will be nearly 2,240,000 meters/second, or 2,240 kilometers/second.

The great magnitude of this velocity, v , and its proximity to that of light (300,000,000 meters/second) provoke the following inquiry. How much must the mass of a heavenly body exceed that of the sun to retain on its surface particles endowed with a velocity of $3 \cdot 10^3$ meters/second, if its mean density were equal to that of the sun? This may be calculated from the fact that if the mean density of the two luminaries be equal, the velocities of bodies able to escape into space from the spheres of attraction will stand in the ration of the cube roots of their masses, and therefore a luminary from whose surface particles endowed with a velocity of 300,00,000 meters/second could escape must have a mass 120,000,000 times that of the sun, for only particles having a velocity of 608,000 meters/second can escape from the sun, and this stands to 300,000,000 in the ratio of 1:493, and the cube of 493 is nearly 120,000,000.

But, so far we have no reason for admitting the existence of such a huge body, and therefore it seems to me that the velocity of the particles of our gas (ether) must, in order to permeate space, be greater than 2,240,000 meters/second and probably less than 300,000,000 meters /second.

Hence the atomic weight of x as the lightest elementary gas, permeating space and performing the part of the ether, must be within the limits (formula II) of 0.000,000,96 and 0.000,000,000,053, if that of $H = 1$.

I think it is impossible, under the present conditions of our scientific knowledge, to admit the latter value, because it would in some measure answer to a revival of the emission theory of light, and I consider that the majority of phenomena are sufficiently explained by the fact that *the particles and atoms of the lightest element x capable of moving freely everywhere throughout the universe have an atomic weight nearly one millionth that of hydrogen, and travel with a velocity of about 2,250 kilometers/second.*

When I was making these calculations, my friend Professor Dewar sent me his presidential address to the Belfast meeting of the British Association. In it he expresses the thought that the highest regions of the atmosphere, which are the seat of the aurora borealis, must be considered to be the province of hydrogen and of the argon analogs. This is only a few steps from the yet more distant regions of space and from the necessity of recognizing the existence of a still lighter gas capable of permeating and filling space and thus giving a tangible reality to the conception of the ether.

In conceiving the ether as a gas endowed with the above properties, and belonging to the zero group of elements, I desired before all to extract from the periodic law that which it was able to give and to tangibly explain the materiality and universal presence of an ethereal substance throughout nature, and also to explain its faculty of permeating all substances, gaseous, liquid and solid. The atoms of even the lighter elements forming the ordinary substances being several million times heavier than those of ether, they are not likely to be greatly influenced in their mutual relations by its presence.

Of course there are still many problems to be solved, but I think the majority are unfathomable, and I have no intention of raising them here or of trying to solve those which appear capable of being solved. My only purpose has been to state my opinion on a subject about which I know many are thinking and some are beginning to speak.

Without going into a further development of our subject, I should like to acquaint the reader with some, at first sight, auxiliary circumstances which guided my thoughts and led me to publish my opinions. These consist of a series of recently discovered physico-chemical phenomena which are not subject to the ordinary doctrines of science, and have caused many to return to the emission theory of light, or to accept the, to me, vague hypothesis of electrons, without trying to explain to the utmost the familiar concept of an ethereal medium transmitting luminous vibrations, &c. This more especially refers to radioactive phenomena.

I need not describe there most remarkable phenomena, assuming that the reader is more or less acquainted with them; and will only mention that a perusal of the literature of the subject, and what I saw in M. Becquerel's laboratory and heard from him and Monsieur and Madame Curie, gave me the impression of some peculiar state proper chiefly (but not exclusively, just as magnetism is chiefly, but not exclusively, the property of iron and cobalt) to uranium and the thorium compounds.

As uranium and thorium, and also radium, judging from Madame Curie's researches (1902), have the highest atomic weights ($U=239$, $Th = 232$, and $Rd = 224$) among the elements, they may be looked upon as suns, endowed with the highest degree of that individualized attractive capacity, a mean between gravity and chemical affinity, which is seen in the absorption of gases, solution, &c. By conceiving the substance of the ether as the lightest of gases, x , deprived, like helium and argon, of the power to form stable definite compounds, it need not be imagined that this gas is deprived of the faculty of, as it were, dissolving in or accumulating about large centers of attraction like the sun among heavenly bodies, or uranium and thorium in the world of atoms. As a matter of fact, direct experiment proves that helium and argon are able to dissolve in liquids, and, moreover, to individualize this faculty according to either their own nature or that of the liquid and according to the temperature. If the ether is a gas, x , it must naturally accumulate from all parts of the universe towards the medium or mass of the sun, just as the gases of the atmosphere accumulate in a drop of water. And the lightest of gases, x , will also accumulate about the heaviest atoms of uranium and thorium, and perhaps change its form of motion like a gas dissolved in a liquid. This will not be a definite act of combination, determined by a conformable harmonious motion, like the motion of a planet and its satellites, but an embryo of such a motion, resembling that of a comet in the region of heavenly individualizations, and it may be looked for sooner in the region of the heaviest atoms of uranium and thorium than in those of the lighter elements, just as a comet falling from space into the planetary system revolves round the sun and then once more escapes into space. If such a special accumulation of ether atoms about the molecules of uranium and thorium be admissible, they might be expected to exhibit peculiar phenomena, determined by the emission of a portion of this ether held by particles of normal mean velocity and by new ether entering into the sphere of attraction. It seems to me that the optical and photo-radiant phenomena, not to mention the loss of electrical charges, indicate a material flow of something which has not been weighed, and it appears to me that they might be understood in this manner, for peculiar forms of the entrance and egress of

ether atoms should be accompanied by such disturbances in the ethereal medium as give the phenomena of light. Monsieur and Madame Curie showed me the following experiment, for instance. Two small flasks were connected together by a lateral tube fused into their necks, and having a stopcock in the middle. The cock being closed, a solution of the radioactive substance was poured into one of the flasks, while the gelatinous white precipitate of sulfide of zinc, shaken up in water, was placed in the other flask. Then both flasks were closed. So long as the cock between the flasks remained closed, nothing is visible in the dark; but directly as it is opened, the sulfide of zinc becomes brilliantly fluorescent and continues so as long as the tube connecting the flasks remains open. This experiment gives the impression of an emissive flow of something material from the radioactive substance, and, in a sense, seems comprehensible if we assume that a peculiar refined ether gas, capable of exciting luminous vibrations, enters and passes off from the radioactive substance. Just as any kind of motion may be set up in a gas, not only by a solid piston, but also by the motion of another portion of the same gas, so also the phenomenon of light, i.e., a certain transverse vibration of the ether, may be produced not only by the molecular motion of particles of other bodies (by heating them or otherwise) bringing the ether from its state of mobile equilibrium, but also by a certain change in the motion of the ether atoms themselves; i.e., by their destroying their own equilibrium which may be caused in the case of radioactive bodies by the massiveness of the atoms of uranium and thorium, just as the luminosity of the sun may be, I think, due to its great mass being able to accumulate ether in far larger quantities than the planets, &c. I think that the radio-luminous phenomena, i.e., such as proceed at right angles to the ray of the vibration of the ether medium, consisting of minute atoms in rapid motion, are, as a matter of fact, more complex than has hitherto been thought, chiefly owing to the fact that the velocity of the ether atoms is not very much less (180 times) than that of the propagation of their transverse vibrations. This at all events was the impression I acquired from the radioactive phenomena I saw, and I do not conceal it, although I consider it very difficult to form any opinion on this still dim province of the phenomena of light.

In conclusion, I may mention another class of phenomena, which led me to this conception of the ether. Dewar, about 1894, in his researches on the phenomena proceeding at low temperatures, observed that the phosphorescence of many substances, and especially of paraffin, becomes more intense at the temperature of liquid air (between -181° and -193°). Now, it appears to me that this is due to the fact that paraffin and such like substances have a great capacity for condensing the atoms of ether at very low temperatures. In other words, that the solubility (absorption) of the ether atoms in some bodies increases in extreme cold. They therefore become more phosphorescent, for the vibrations of light are then set up in the phosphorescent substances, not only by their own atoms (having the property of illumination at their surface, of passing into a state of peculiar tension, which causes, when the act of illumination ceases, the ether to vibrate), but also by the atoms of ether which condense in these bodies and set up a rapid state of interchange with the surrounding medium.

It seems to me that this conception of ether, as a peculiar all-permeating gas, gives a means, if not of analyzing such phenomena, at all events of understanding their possibility. I do not regard my imperfect endeavor to explain the nature of ether from a chemical point of view as more than the expression of a series of thoughts which have arisen in my mind, and which I have given vent to solely from a desire that these thoughts, being suggested by facts, should not be utterly lost. Most probably similar thoughts have come to many, but unless they are enunciated they often

pass away without being further developed. If they contain a particle of that natural truth which we all seek, my effort will not have been in vain; it may then be worked out, embodied and corrected, and if my conception be proved false in its basis, it will prevent others from repeating it. I know of no other way for slow and steady progress. And even if it be found impossible to recognize in the ether the properties of the lightest, most mobile, and chemically inactive gas, still, if we keep to the realm of science, we cannot deny its substantiality, and this requires a search for its chemical nature. My effort is no more than a tentative answer to this primary question, and its one objective is to bring this question to the fore.

October 1902

Christian MONSTEIN, *et al.*

Space Quanta Medium (SQM) & Central Oscillator

Crane Oliver - J. M. Lehner - Chr. Monstein : Central Oscillator and Space-Quanta-Medium: Foundations of a New Physics and a New Cosmology based on the newly discovered space-quanta-flux SQF.

The C-Generator

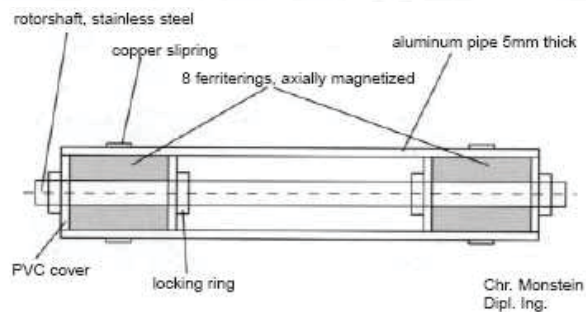
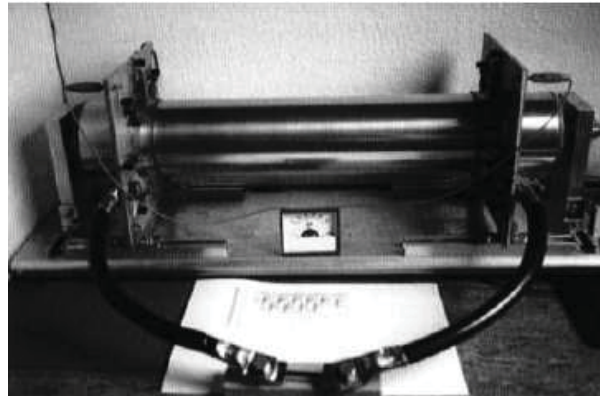


Fig. 3 Detail drawing of the rotating part of the C-generator

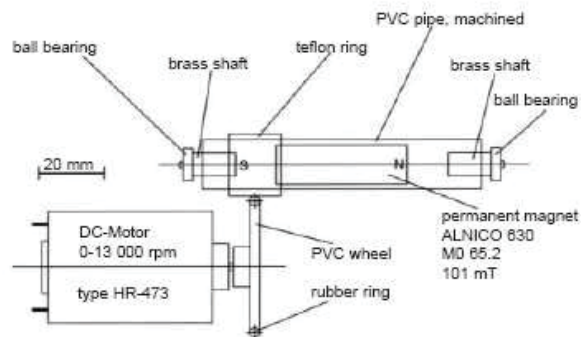


Fig. 1 Detail Sketch

Inventor: GIBAS PETER ALFRED [DE] ; LEHNER HANS
Applicant: RQM RAUM QUANTEN MOTOREN AG [CH]
1998-02-28

Also published as: // PT897327 // ES2165597 // EP0897327 // HR970226

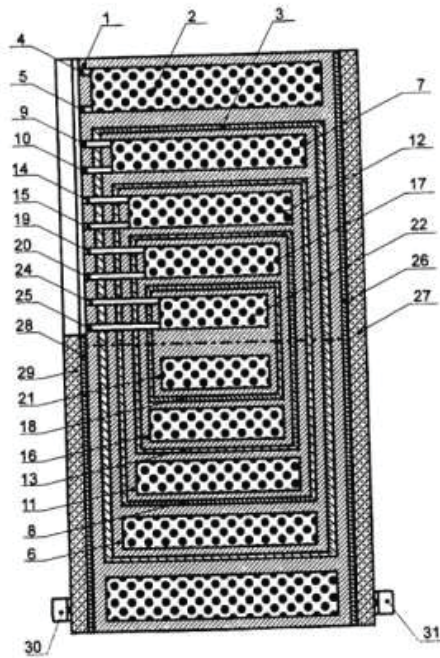


Fig. 1

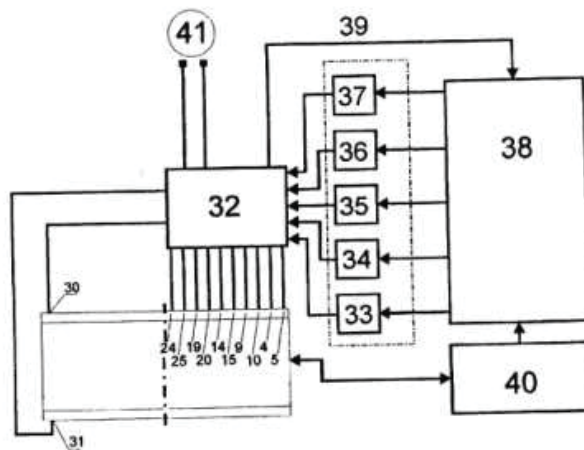


Fig. 2

Abstract -- The object of the invention is to provide a method and device for use in the field of intense electromagnetic pulse generation, for example for investigating or influencing materials structures as well as for use in EMC investigations, so as to provide a novel technological alternative for developing further areas of application. This object is achieved in that the structure of the core member of the device essentially takes the form of $2 + n$ (i.e. 5 when $n = 3$)

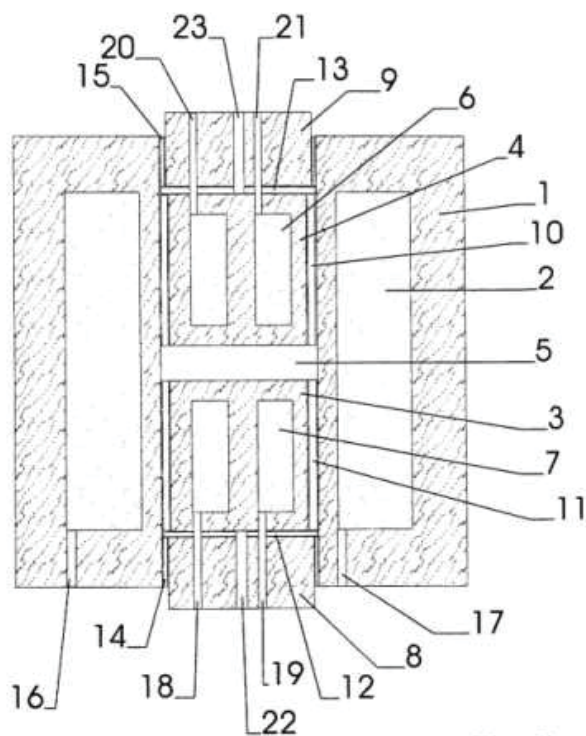
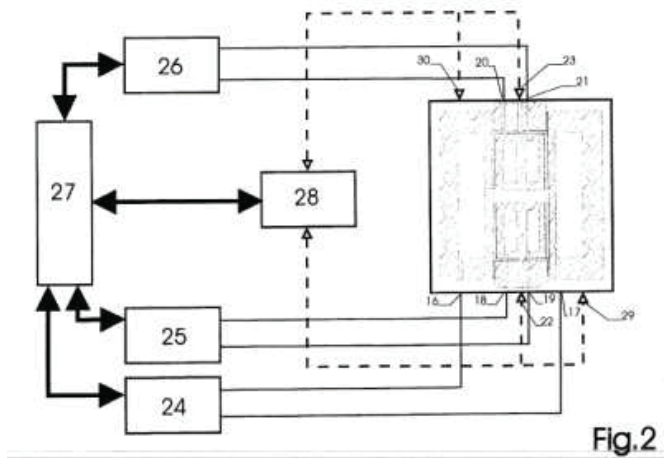
electromagnetic resonant cavities fitted into one another according to the "Russian doll" principle; and in that the resonant circuit system is connected for circuitry and metrological purposes to the pulse generators (33, 34, 35, 36, 37), used for generation, and to an evaluation and control unit (38) and a vibration-measuring device (40). The invention concerns a method and device for generating electromagnetic pulses on the basis of electrical, magnetic and mechanical interactions between electromagnetically and mechanically oscillatory systems and can be used in fundamental research for materials structure, solid-state physics, material investigations and EMC investigations.

CH691378 [[PDF](#)]

Apparatus for changing the properties of materials used in the production of synthetic crystals comprises an outer electromagnetic magnetic arrangement, inner electromagnetic arrangements, an inner hollow chamber and immersion anchors

2001-07-13

Inventor(s): LEHNER JEAN-MARIE [CH]; GIBAS PETER ALFRED DR ING [DE];
GREILINGER FRIEDRICH [DE]



Abstract -- Apparatus for changing the properties of materials comprises an outer hollow cylindrical electromagnetic magnetic arrangement (1) having a recess for an excitation coil (2) in

its wall; two inner electromagnetic arrangements (3, 4) arranged over each other in an axial direction and having inner excitation coils (6, 7); an inner plate-like hollow chamber (5) between the inner magnetic arrangements acting as a reaction chamber for the materials to be treated; and two immersion anchors (8, 9) which close the inner chamber of the outer magnetic arrangement. An Independent claim is also included for a process for operating the apparatus. Preferred Features: The inner magnetic arrangements are coated with a diamagnetic material with the same or lower friction coefficient and the same of higher heat resistance as PTFE. A copper intermediate layer is arranged between the immersion anchors and the inner magnetic arrangements.

Google Search Results

The Monstein Effect experiment - Tests Report by Sergei M. Godin
Feb 17, 1998 ... Unfortunately, Monstein Effect was not confirmed, all results may be explained by aerodynamics and vibration effects. ...

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JLN Labs - The HOOPER-MONSTEIN Experiment

This HOOPER-MONSTEIN effect can be easily explained with the Oliver Crane's theory and is also fully used by RQM (Raum Quanten Motoren AG)

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Earth's rotation is the cause for its magnetization

Experimental establishment of the Monstein-Barnett effect ... one reported by Barnett, and I call the effect reported by Monstein the Monstein- ...

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I can say that the HOPPER-MONSTEIN effect is clearly demonstrated with this experiment.

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JLN Labs - Quantum Electrodynamics

Critique of Hooper-Monstein Experiment, by Cyril Smith; The "Monstein Effect" Experiment - Tests report by Sergei M. Godin. A Vortex in a bottle. ...

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www.astro.phys.ethz.ch/staff/monstein/private/index.html

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[Excerpts --]

***Central Oscillator and Space-Quanta-Medium: Foundations of a New Physics and
a New Cosmology based on the newly discovered space-quanta-flux SQF.
Foundations of a new SQM/SQF-Technology***

by Oliver Crane - J. M. Lehner - Chr. Monstein

June 2000

ISBN 3-9521259-2-X

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Part 1 The New, Unified World View of Physics by O. Crane

Introduction

Since there has been no success achieved yet in explaining all physical facts and results of experiments with a universal and unified theory, the serious and absurd step away from reality into abstraction was taken. In so doing, explicitly and consciously, one gave up the idea of creating a concrete and visual picture of physical phenomena. One seems to be happy with purely mathematical proofs. Experimental facts take a secondary place and are only accepted, if they "fit" into the official doctrine. A different opinion, for example, was held by Goethe, who believed that mathematics was not at all required in order to understand natural, scientific phenomena. It is believed, therefore, that nature can be explored according to the principle of the sorcerer's apprentice: "If you do thus and so, then this and that will happen", but one does not have the minutest idea of what in reality and, actually is happening. The problem of the unification of the world view of physics can not be solved on the basis of mathematical fictions. This has been proven sufficiently by now since all attempts thus far have failed. The total takeover of physics by mathematics, changed it into an abstract discipline, which conveniently overlooks the facts. Physics should not be conducted in the dragnet of mathematics alone, since it is a rather independent field, which can be described with logical, functional models. Significant for the reality of natural events can only be experimental facts, and by no means any mathematical abstractions.

Even the smallest particle possesses a certain spatial volume and thus has 3 dimensions. Up to this time there has never been shown an actual structure with more or less than 3 dimensions.

Even the thought of a 4-dimensional object is an absolute impossibility, and even more so its practical realization. In spite of this, presently, as is well known, work is being done worldwide on the theory of "superstrings" based on 10 dimensions! (9 spatial dimensions and 1 dimension for time). Beyond this, establishment physics, however, is convinced, that nature somehow is able to create "structures" up to 26 spatial dimensions (!), for only thus can light waves be mathematically "described". Even the greatest nonsense can be mathematically described or 'camouflaged' thus attaining credibility in the eyes of establishment physics. Empty Space: Empty space is defined as an "absolute nothing". but in an absolute nothing, nothing can change. If, however, an electromagnet is switched on inside a vacuum, then the building up of a magnetic field does cause a change in the so-called "absolute nothing"! The same thing happens when an electric field is established! Therefore, if changes in "empty" space do happen, then of necessity "something" has to be present which is changing. Consequently "empty" space must contain a substance yet to be defined or a medium must exist (but not in the sense of the classical ether-idea).

Vacuum

A space free from any matter is described as a vacuum. This state can be artificially created with the help of a vacuum pump. Strictly speaking, a pure vacuum, however, does not exist. Even between galaxies there are found elementary particles, even if only in a minute density. A point in space, however, can very well have an electromagnetic potential. Electromagnetic radiation penetrates the vacuum at the velocity of light.

All of physics abounds with "phenomena" (unexplained facts), which establishment physics can not explain nor prove. These "phenomena" are therefore "ignored" and for obvious reasons do not find a place in textbooks or instructions in universities and higher schools of learning. Ether is what Aristotle called the heavenly substance, which light penetrates in order to reach earth. Ether, is the Greek word for 'shine'. Since the ether can not be differentiated from the vacuum, it can not move and thus remains at absolute rest. If there is absolute rest, there will also be absolute motion, absolute space and absolute time. The next question was, what is the absolute velocity of the earth compared to this resting ether. Such a value would be of great importance for the philosophy of science. If light consists of ether waves, as formerly assumed, then velocity measurements of light in the direction of travel and against the Classical Ether (Aether) Idea Ether is what Aristotle called the heavenly substance, which light penetrates in order to reach earth. Ether, is the Greek word for 'shine'. Since the ether can not be differentiated from the vacuum, it can not move and thus remains at absolute rest. If there is absolute rest, there will also be absolute motion, absolute space and absolute time. The next question was, what is the absolute velocity of the earth compared to this resting ether. Such a value would be of great importance for the philosophy of science. If light consists of ether waves, as formerly assumed, then velocity measurements of light in the direction of travel and against the direction of travel of the earth, should show differences. (Michelson-Morley-experiment). Since, however, surprisingly, no differences were measured, the idea of an absolute space was dropped. The theory of relativity was born. This theory can not decide whether there is an ether or not. The great physicist Dirac said in 1953, that the etherless basis of physics theory would soon reach the end of its validity..

2. Working Strategy

Other ways had to be found therefore, because, using the same knowledge and the same methods, by default, the same (incorrect) results will be obtained. Therefore the following working strategy was devised:

1. For this work, only clear, concrete functional models can be used. Not one single abstract factor can be allowed. Everything must be clear down to the smallest detail and it must be possible to describe it with the parameters of classical mechanics. Absolute causality is the basic principle. Causality is that relationship, in which cause and effect stand. With respect to events in nature, philosophically, an unbroken and complete causal relationship is assumed. In this the same causes result in the same effects. In physics one tries to relate events to previous events. The circumstance, that an event can only be the consequence of an earlier event, is called causality. From this can be deduced, that time travel is impossible, especially not into the past. In the theory of relativity, however, it is assumed, that there are events, which have no causal relationship since in time they are so remotely placed, that even light rays can not connect them. In quantum mechanics cause and effect are only connected by means of statistics. This purely statistical interpretation, by default, results in a total break with all previous ideas in physics. Modern physics rejects determinism (causality) for the microcosmic events, but in so doing it also rejects it for any other events, generally, which are but built up from innumerable micro events. Einstein was convinced, that behind the world of quanta there was hidden the well known world of classical physics (hidden parameters). For this reason he consequently rejected the quantum theory.
2. Mathematics can only be used from now on, for example, to determine exact values or relationships, but in no case must fictional, abstract structures be "designed" without any relationship to reality.
3. The analytical method is not to be used any more, but rather that of synthesis. The question then is: How is space structured, to produce entities such as elementary particles, atomic nuclei, electric fields, magnetic fields, gravitation etc. and how do they exist?
4. The goal will have been reached in reducing all functional models designed to one functional model which then can be used and applied to all of physics.

2.1. Demands for a Unified Functional Model

We will now show the most basic demands required for such a functional model (there are many more), without using the knowledge gained from the completed theory. We have two different particles, one A (proton), one B (electron). Each of these particles will repel another of the same kind. The repelling of the A-particles amongst themselves must be equally as strong as the repelling of the B-particles amongst themselves. However, A and B attract each other with the same force as the repelling force. On the outside nothing is noticed of this force, it has been neutralized. B is about 2000 times lighter than A, yet its electrical charge is just as strong as that of A, yet of opposite polarity.

Besides this there is another third particle C (neutron), which is neither attracted nor repelled by either A or B, nor does it have any electrical charge. When A or B are moving, they generate a magnetic field at right angles to their direction of motion. If A moves, it generates a magnetic field which is identical with that of B, if it (B) moves in the opposite direction of A. Likewise B generates a magnetic field, which is identical to that of A, if it (A) moves in the opposite direction of B. A and B rotate about their own axis and in so doing they also generate a magnetic field. If A rotates in a certain direction, then it will generate a magnetic field that in fact corresponds to that of B, if B rotates in the opposite direction of A. Likewise B generates a magnetic field, which in fact corresponds to that of A, if A rotates in the opposite direction of B. Besides this, there is the third particle C (neutron), which, though it has no electrical charge, does, however, generate a magnetic field due to its "rotation", which corresponds to that of B. If A, B or C are moving, a resistance is encountered in the direction of motion, which has to be overcome. Without any further influence, these particles move uniformly in a straight line in the given direction.

Any deviation from this uniform, straight line motion again encounters resistance. In order to stop the particles, the same force must be expended, as was used to accelerate them. At very high velocities a mass increase seems to be noticed in A, B and C, with simultaneous particle contraction in the direction of motion, as well as a slow down of time (dilatation). All three changes start at the same time and increase proportionally with uniform intensity in relation to the velocity. Particles A and C can combine into atomic nuclei, in which case C can only remain stable inside the nucleus. At a certain size or certain amount of mass between A and C the nucleus becomes unstable (radioactive). This limits the number of particles A and C in the nucleus. Among the particles A, B and C there is also a small attractive force which is identical with that of gravitation. These few examples may be impressive, but they are only a fraction of the demands required for a functional model. It seems unlikely that in past publications the relatively simple functional model presented, did in fact perfectly fulfill all these highly complex and seemingly contradictory demands. Beyond this, it is the only solution of a functional model, that is possible, as has been found out in more than 30 years of research.

Basic Problems

Against expectation, the main difficulty was found, not in the complication of the problem, but on the contrary, in the fact that nature "functions" rather simply. This is according to the principle: "This is as simple as is possible!" Man thinks much too complicated. The reason is, that a very simple solution of a difficult problem makes tremendous demands on the thinking apparatus. However, a complicated, elaborate solution of the same problem does not strain the brain at all. Therefore it is terribly difficult to find terribly simple solutions. (having quoted Paul Scherrer). Present physics offers these complicated, elaborate solutions to problems, even in totally abstract form. Thus it was, at the beginning, a rather troublesome path to represent a concrete, realistic functional model based on all the connected facts, of which a partial field of physics consists. But the fact alone that such functional models could be realized (at first only for few partial fields of physics), was enough motivation to continue the work. To this must be added that these models did withstand any criticism, and so far no one has been able to refute even the smallest detail. In the course of time a specific thought model developed from the individual functional models constructed, which made further work essentially easier.

Conventional physics also has its own thought model.

After the basic functional models had been constructed with great effort, it was found to be fairly simple to reduce these to one fundamental model, for not once was there a choice among several possibilities. Inside the framework of this functional model, there is always only one specific solution possible. This makes it logically and factually consequent, since real events in nature agree exactly with this unified theory, and this all the more, as literally every single, physical function can be reduced to pressure and counterpressure. This is simple and it can not be simpler.

Foundational Prerequisites

The entire contents of the universe consists of an ideal gas, which is highly degenerated within high density zones. Density and pressure of this medium are extremely high, even if compared to the proportions inside the atomic nucleus. This gas consists of uniform particles called "space-quanta" (SQ). The volume of these SQ is many orders smaller than elementary particles. All elementary particles and force fields consist of these SQ. Compared to the normal SQ-density (static medium pressure) positive elementary particles constitute zones with smaller SQ-density (low pressure zone) and negative elementary particles are zones with greater SQ-density (high pressure zones).

Ideal, strongly degenerated Gas

The concept of an ideal gas is found in connection with the change of volume of gases. If this volume change is indirectly proportional to the pressure, which is imposed on an enclosed gas, then it is called an ideal gas. (Law of BoyleMariotte). Helium, a real gas, is considered an ideal gas at a sufficient distance from the condensation point. Water vapor, however, has an approximately 10% higher coefficient of expansion and can therefore not be called an ideal gas. As a consequence of the equation of state it is also true, that the volume of an ideal gas is proportional to its temperature, as long as the pressure does not change (Law of Gay-Lussac). If a gas is heated it will expand if no extra pressure is exerted on the piston at the same time. Matter is called degenerated if it is totally ionized, that is, if the positive and negative particles are not coupled together. We know about so-called "free" electrons in a metal. If those electrons were bound to the atomic nuclei, then the metal would not be able to conduct electricity. By analogy: If in a gas all electrons are free, then the gas is called degenerated and often called a plasma. Since the atomic nuclei and electrons surrounding them are independent of each other, one can not talk about a common temperature any longer, which means, the concept of temperature has no more meaning.

Local pressure differences within a medium can only be kept up by outward energy input. For the existence of elementary particles it is therefore absolutely required to have a permanent energy supply. Therefore we postulate the introduction of a central oscillator (spherical transmitter of zero order), which transmits longitudinal, mechanical oscillations, with a frequency of about 1023 Hz, to the SQ-medium. These progressive waves are reflected at the periphery of the universe.

Spherical Oscillator of Zero Order

Most sonic transmitters (oscillators) can be classified in three basic types, depending on the type of direction of propagation, which are spherical transmitters of zero, first and second order. The spherical transmitter (or radiator) of zero order, also called "acoustic monopole", can be represented by a pulsating sphere. This is a sphere which periodically changes its radius. The generation of sound therefore depends on a periodic change of volume. Thus sound propagates uniformly and symmetrically in all directions. Longitudinal and Transverse Waves Longitudinal waves can best be described as compressions and rarefactions of a medium, which due to mutual repulsion of the particles propagate with the so-called signal velocity. The waves are caused by a one time or periodic displacement of a particle or that of a spherical oscillator. If it is a periodic displacement, then the particles oscillate about their position of rest by periodically moving in the direction of propagation of the wave or against it. If the original oscillation is harmonic, then we have a sine wave. Sound waves are typically longitudinal waves. The signal velocity of sound is that velocity which depends on the medium. Transverse waves are waves in which the particles move at right angles to the direction of advance of the wave. In these waves the crests and the valleys of the wave alternate. The point behind the crest of the wave, where no displacement occurs, corresponds to the zone of greatest compression. The corresponding point behind the valley in the wave is the zone of greatest rarefaction in longitudinal waves. Waves on the surface of a liquid are typically transverse waves. Electromagnetic waves also belong to the transverse waves. Their signal velocity is equal to the velocity of light.

Consequently, standing waves (SW) are generated, without gaps, in the entire space between the central oscillator and the periphery of the approximately spherical universe. Standing waves are the result of interference between two coherent, opposing waves of equal frequency and amplitude. For the existence of elementary particles and force fields (such as gravitation) it is absolutely required, that the amplitude pressure of the SW will be significantly higher than the static SQ-medium pressure. This results in an asymmetry, because the amplitude pressure of the low pressure phase can only go to a zero value, while in the high pressure phase it can reach any value. This causes an oscillation, the negative half-wave of which has a smaller amplitude than the positive half-wave. This, amongst other things, makes the signal velocity 'c' dependent on the pressure of the amplitude. We are specifically dealing here with mechanical, longitudinal waves (comparable to ultra sonic waves of extremely high frequency), which contrary to electromagnetic waves, can assume any energy values while remaining at the same frequency.

Progressive and Standing Waves

Two waves, which are simultaneously traversing the same medium in opposite directions will superimpose upon a standing wave, provided that both waves agree in amplitude, frequency and wavelength. Most often such standing waves originate if a longitudinal, one-dimensional (linear) wave or a transverse, three-dimensional, spherical wave reaches superposition with itself after it has been reflected. A reflection results when entering into a thinner medium, as well as when entering a denser medium. If no reflection with above conditions is observed, then one calls it a progressive wave. The amplitude of the standing wave is twice as great as that of a progressive wave.

The frequency of 1023 Hz yields the elementary length of 10 -13 cm, and likewise we have the elementary time period of 10 -23 seconds.

Signal Velocity 'c'

The velocity of propagation of waves is also called signal velocity. It depends on the type of wave, and sometimes also on the wave length, but it always depends on the medium which oscillates, respectively on the medium through which the electromagnetic wave travels. Surface waves can be very slow, while pressure waves range from 170-5400 meters / second.

Electromagnetic waves all have approximately the velocity of light. If dispersion shows up, then it is better called group velocity due to the different signal velocities found with different wave lengths.

Mechanical and Electromagnetic Waves (Difference)

While in mechanical waves particles of matter are oscillating, the propagation of electromagnetic waves is not bound to matter. Its signal velocity, contrary to that of mechanical waves, is nearly constant in different media and almost one million times greater. The potential and kinetic energy (energy of motion) of the mechanical wave corresponds to the average electrical, respectively the average magnetic energy density of the electromagnetic waves. The total energy density for both types of waves is proportional to the square of the amplitude. The outstanding difference between the two types of waves, however, is this: The energy density of electromagnetic waves has a fixed relationship to the oscillation frequency. Mechanical waves, however, can assume any energy value at any frequency. Interference If several waves traverse a medium, superposition takes place, which is called interference. This calls for the principle of the undisturbed superposition (superposition principle), which means, that at any place and any time, the momentary displacements of the waves involved, may be added to obtain the resulting displacement. These resulting displacements may be positive or negative, which can also result in extinguishing the waves. The maximum total amplitude corresponds to the greatest possible displacement, which can be caused by the interference at a certain place at a certain time. Even light waves can interfere, provided they are coherent.

Static Medium-Pressure

A pressure exerted on a liquid or a gas, distributes over the entire medium in all directions with equal force. Or: Inside, as well as at the boundaries of a resting medium, which is not subject to external forces, the same pressure exists everywhere. This is the static pressure of the medium. This all around pressure distribution is explained by the easy displacement of the light-weight particles in liquids and gases.

Coherence

It has been found, that several light sources in a room will never extinguish by interference or show any intensity patterns. The reason for this is, that different types of light sources generally are incoherent. If light waves from the same wave train are split by reflection, refraction or diffraction then the waves thus generated are called coherent. Only these types of waves are

capable of interference. Laser light allows extreme coherence which is important in holography.

Sound Waves

Sound waves are mechanical, longitudinal waves. Originating from a sound source, an oscillating body, they travel in solid bodies, liquids and gases in the form of pressure variations (pressure waves). The human ear usually can hear frequencies from 16000 - 20000 Hertz. Higher frequencies are designated as ultrasound, lower ones as infrasound. The amplitude corresponds to the loudness, the frequency of the tone or the pitch, and the shape of oscillation to the overtones or harmonics. The velocity of sound reaches from 170 meters / second (in the noble gas Xenon) to over 1403 m / s (in water at zero degrees Celsius) to 5400 m / s (in quartz glass). In dry air of zero degrees Celsius the velocity is 332 meters / second.

Relationship Frequency - Oscillation Energy

Energy is transported in every wave as oscillation energy, which is passed on from particle to particle of the medium. Standing waves are an exception, the energy of which remains in the same place and is not transported. At the zero point a particle has maximum velocity and maximum kinetic energy. At the valley (return point) it has no velocity, but maximum potential energy, is proportional to the square of the amplitude. This means if the amplitude (loudness or volume in acoustics) is doubled, the energy will increase fourfold. If the energy for a small unit volume is calculated, which is the energy density, then it is found that it also is proportional to the frequency of a wave. If therefore the frequency of a wave is doubled, keeping the same amplitude (in acoustics this means one octave higher), then the energy density increases fourfold.

Definition of the Electric Field

All positive and negative elementary particles, being resonators, are forced to carry out radial pulsations in rhythm with the central oscillator (1023 Hz), thus generating progressive waves, which are identical with the electric field of the respective particle. Negative particles (high pressure zones) reflect pressure as pressure and low pressure as low pressure. Positive particles (low pressure zones) however, reflect pressure as low pressure and low pressure as pressure, which results in a phase displacement of 180. Between negative particles on the one hand and positive particles on the other hand, interference causes twice as high a pressure as can be found outside the particular particle. This is identical with the repulsion of like charges. Resonators A resonator is a device which can be excited to resonant oscillations. Some resonators are used to make acoustical measurements. Gas filled hollow spaces, of any shape (especially a sphere) with a neck for an opening are resonators comparable to a spring to which a mass is attached. The oscillation of the spring corresponds to the periodic change of volume of the gases in the sphere. The mass of gas in the neck is being moved back and forth. It can be shown, that such a sphere has a precisely definable resonant frequency which depends on the volume of gas, the dimensions of the neck, as well as the velocity of sound in that particular gas. If many of those resonators of different size are lined up in a row, it is possible to make acoustical analyses, which are the records of the frequency portions of an acoustic wave. There are also resonators for electromagnetic waves. A well known example is the optical laser.

Due to the phase displacement of 180° , however, a compensation (extinction) occurs between negative and positive particles resulting in lower pressure compared to the pressure outside the particle. This is identical to the "attraction" of unlike charges. The particles of course are not "attracted" but pushed together.

Different Actions of Reflection (phase displacement) of Longitudinal Waves and Transverse Waves

Longitudinal waves: If a stiff spring is elastically supported and brought to oscillation by pulling it down briefly, then a compression of the spiral windings will transmit downward to the end of the spring. When the compression has reached the end it runs out freely. A subsequent rarefaction (loosening) of the windings runs back up. The reflection at the free or "soft" end turns the compression into a rarefaction, which is called a phase shift or phase displacement of 180° . If the spring is held tight at the lower, the free end, then the compression is reflected and runs back as a compression. In other words, the compression is not followed by a rarefaction, but another compression. A rarefaction will run back as a rarefaction. The reflection at the firm or "hard" end will reflect a compression as a compression, and a rarefaction as a rarefaction. **Transverse waves:** If a horizontally supported rope is fastened flexibly at one end and the other end is made to oscillate by an upward thrust, then a wave crest will move to the other end of the rope. Since the rope is freely movable it can let the wave crest oscillation move upward freely. It is as if this end of the rope is subjected to an upward thrust, which runs back as a wave crest. A wave trough (valley) arriving will run back as a trough. The reflection at the free or "soft" end sends a wave crest back as a wave crest and a wave trough is reflected as a trough. If, however, the rope is fixed at the end, then the rope end is not able to carry out an oscillation vertically to the direction of the rope. If therefore a crest arrives, then the previous rope particles can not fully carry out the motion imparted to them, since the fixed end of the rope exerts a pull downward on them, which results in a motional impulse that also goes down. This causes a wave trough to be formed which moves in the opposite direction. For the same reason an arriving wave trough runs back as a wave crest. A reflection at the firm or "hard" end sends a wave crest back as a wave trough and a wave trough is reflected as a wave crest. This reflection action is called phase shift or phase displacement of 180° .

The electrostatic repulsion and "attraction" is based on two criteria:

1. All positive elementary particles pulsate in the same phase position. All negative particles pulsate in the same phase position.
2. Between positive and negative elementary particles exists a phase displacement of 180° . Progressive waves generated by positive and negative elementary particles (which are resonators), do not only interfere with each other, thus causing the "electric field", but also interfere with the SW. There is a superposition of the reflected component of the SW, arriving from the outside, with the negative particles. This causes a high pressure along the axis of incidence, which reaches its maximum value right at the particle and then decreases with the square of the distance. The reflected portion of the component of the SW, (being 180° out of phase) and arriving from the outside, interferes with the positive particles. This causes a low

pressure in the axis of incidence (by extinction), which reaches its maximum value right at the particle and then decreases with the square of the distance. This interference with SW only happens, if the respective electrical charges are not compensated. Low pressure or high pressure are thus only depending specifically on the wave. The static pressure of the medium is not changed. This can be stated as follows:

A positive electrostatic field causes a low pressure. A negative electrostatic field causes a high pressure.

Definition of the Biefeld-Brown Effect

Based on a proposal by Prof. Paul Biefeld (former fellow student of Einstein in Zurich), the physicist Townsend Brown carried out an experiment in 1923 as follows: A high voltage plate condenser was charged and suspended horizontally, being free to move. Townsend Brown observed that the condenser started to move on its own in the direction of the positive pole (low pressure) sustaining a constant thrust. When the condenser was vertically fastened to a beam scale a weight increase showed if the positive pole (low pressure) was pointing down. Correspondingly a weight loss occurred when the negative pole (high pressure) was pointing down. The intensity of the effect was determined by the size of the pole plate areas, the voltage level and the polarization capability of the dielectric. The exact explanation for the event of this effect was given, in detail, under the title: **Definition of the Electric Field**. Therefore, the Biefeld -Brown Effect has nothing to do with gravitation. It is a pure effect of the electric field. Dielectric A dielectric is a non-conducting substance, which is placed between two oppositely charged plates (for instance in a plate condenser). This changes the field strength between the plates. The type of change is described by a characteristic of the dielectric, called permittivity (dielectric coefficient). Vacuum and air have a minimum permittivity of one (1). Water has the highest permittivity (about 80). [A BaTiO₃ crystal can have a value of 2000, if the electric field is perpendicular to the principal axis of the crystal].

The Biefeld-Brown Effect directly proves the pressure decrease in the direction of the positive electric charge and that of pressure increase in the direction of the negative electric charge. This, in turn, is an absolute, basic requirement for the origin of a space quantaflux (SQF), respectively that of a magnetic field. (Please see the following definition of the magnetic field). This advances the Biefeld-Brown Effect to one of the most important, fundamental effects of physics.

Definition of the Magnetic Field

If a negative particle (e.g. electron) is moved it will create a high pressure zone at right angles to its direction of motion. Behind the negative particle the previous high pressure (caused by the presence of the particle) will decrease. This causes a pressure difference, which is again equalized by the space quanta flux (SQF). This SQF is identical with the "magnetic field" and, with a negative particle, flows counter to the particle direction. (Fig. 1). If a positive particle is moved, it creates at right angles to its direction of motion a low pressure zone. Behind the positive particle normal pressure will build up again.

Repulsion of Opposite Flows

In oppositely directed flows, particles in the boundary layers of the two flows hit each other slightly out of line (such as two billiard balls in a non-centered stroke). Thus the particles sustain an impulse which drives them apart. Oppositely directed flows therefore can not mix and will push each other aside (repulsion). Pressure Decrease in Flows A flow contains two pressure components: The static pressure of the medium and the dynamic pressure caused by the flow. The static pressure corresponds to the potential, and the dynamic pressure to the kinetic (motional) energy of the medium. Since the energy of a stationary flow remains constant, this also is valid for the total pressure, which is made up of the dynamic and static pressure. If a resting medium is caused to flow (by opening a valve), then a dynamic pressure results and thus the static pressure of the medium decreases, in order to keep the total pressure the same. (Law of Bernoulli). This pressure decrease shows its effect at right angles to the direction of flow. The principle is used technically in many spray cans and atomizers, as well as in so-called venturi pumps or hose end sprayers.

This causes a pressure difference which again equalizes as SQF (magnetic field). This SQF for the positive particle flows in the same direction as the particle itself. (Fig.2).

Induction

During induction the primary current produces an SQF opposing the direction of motion of the electrons. In the direction of flow a stagnation point develops with the free electrons of the secondary coil, which shifts the electrons in the flow direction to one end of the coil, as far as the electrostatic repulsion (negative pole) will allow it. At the other end of the coil this causes a deficiency of electrons (positive pole). Thus an electric voltage can be measured at the ends of the coil. Moving electrons also generate a high pressure at right angles to their direction of motion. Behind the electrons the previous high pressure will again decrease. This pressure difference equalizes with a secondary-SQF, which is opposing the primary-SQF. These two SQ-

The Process of Induction

A voltage will be induced in a coil, if the magnetic flux penetrating it does change. A similar action occurs when moving a conductor across a magnetic field. This process is called induction. If the conductor loops are closed the induced voltage will generate an induction current. The prerequisite of induction is always a momentary change of the magnetic flux, which can be achieved by changing the magnetic field, or moving the conductor within the field. The induction voltage, respectively the induction current, in a closed loop always acts against the generating flux change (Lenz's Law). With an increase in the magnetic flux the induced current flows against the direction which is derived from the so-called cork screw-rule (right hand rule).

... direction of electron motion high pressure zone pressure decrease normal pressure SQF space quanta flux

Fig. 1. SQF of moving, negative charge (electron) direction of proton motion low pressure zone pressure increase SQF space quanta flux

Fig. 2. SQF of moving, positive charge (proton)

If the primary-SQF remains constant, then the resistance of the conductor, as well as the electron stagnation at one end of the coil (repulsion of like charges), will cause the secondary electrons to slow down until they stop. This has decreased the secondary-SQF and now a stationary (primary-SQF) will form around these electrons, which will have symmetrical pressure points at the front and the back. There is no voltage to be measured at the coil ends at that moment. (Fig. 4).

Stationary Flow (Pressure Points) A flow (flux) means a motion of liquid or gases. The cause of a flow are, for example, gravitation or pressure differences. In order to designate the direction of motion of the flow one uses streamlines. If the paths of the individual particles agree with these streamlines, and if the streamlines keep the same shape for some time, then the flow is called stationary. If an ideal (frictionless) liquid flows around a sphere, then a stagnation point is formed at the foremost point of contact. At this point the flow velocity becomes zero and simultaneously a maximum pressure builds up at that point (pressure point). Starting at this point the flow will split, flow around the sphere and form another analogous point on the opposite side 180° away. The flow velocity will increase and reach its maximum value at the equator of the sphere, then decrease until it slows to a standstill at the opposite stagnation point. The pressure decrease inside the flow (at right angles to the flow) around the sphere, will reach its maximum value at the point of the maximum velocity, which is at the equator of the sphere. The forces acting on the sphere at the two stagnation points or pressure points are of equal magnitude, but oppositely directed, thus compensating to zero (see also 12.9 in the Glossary). No forces will act on a sphere submerged into the (constant) flow of an ideal liquid. On the other hand, a sphere will not be subject to any resistance, if it moves with a constant velocity (uniformly-straight) through a resting, ideal liquid or a resting, ideal gas.

...secondary primary pressure point

Fig.3. SQF at Closing Circuit for Primary Current secondary primary pressure point

Fig.4. SQF at constant Primary Current

If the primary current is switched off, thus decreasing the primarySQF, the rear pressure points of the secondary-electrons will be relieved first and then they receive an impulse from the front pressure points in the opposite direction (compared to the initial current switched on). Again the electrons are pushed to one of the coil ends (negative pole), as far as the electrostatic rejection pressure will allow. This causes a deficiency of electrons at the other end (positive pole). A voltage can now be detected at the ends of the coil. The moving secondary-electrons themselves create a high pressure at right angles to their direction of motion. Behind the electrons the previous high pressure builds up until it reaches normal pressure. The pressure difference equalizes with a secondary-SQF in the same direction as that of the primary-SQF. Between both of these SQF, flowing in the same direction, a low pressure builds up, which due to the static pressure of the medium will push them together ("attraction"). In the primary coil we see, analogous to this, the decrease of the primary-SQF with a simultaneous, so-called break surge. (Fig.5).

Self-Induction

If an electric voltage is applied to the ends of a conductor (for example a coil), then the free electrons will move in the direction of the positive pole, and generate an SQF opposite to the direction of motion. Each free electron will hinder adjacent electrons due to the structure of its own specific SQF (opposite to the direction of motion). This will achieve a common flux with symmetrical pressure points in the front and the back of the electrons. When the current is turned off the SQF decreases again by relieving the front pressure points first.

secondary primary pressure point

Fig.5. SQF when switching off primary current

The rear pressure points now impart an impulse to the free electrons which is identical with the break surge. Self-Induction Changes of the magnetic flux induce a voltage not only in another conductor, but also in the coil itself which produces the magnetic field. This phenomenon is called self-induction. In this case the voltage generated by self induction opposes the change of current in the coil, which first caused the induction.

Magnetic "Attraction" and Repulsion

The magnetic "attraction" and repulsion follows the Bernoulli Principle: Flows traveling in the same direction (SQF) "attract" Flows traveling in opposite directions (SQF) "repel" The pressure decreases in any flow at right angles to its direction of motion. This is also true for the SQF. The static SQ-medium pressure acts as a radially, inward directed force on any SQF (e.g. pinch effect, Fig.6). Two SQF in the same direction do not "attract" each other, but they are pushed together by the static SQ-medium pressure. Field lines used before are an exact cross section through the SQF (disregard vector arrows) and are identical with equipotential surfaces. They are an excellent help to represent the exact path and the local intensity of the SQF. The magnetic field of a cylindrical bar magnet consists of the SQF revolving, in a circle, around the cylinder axis. In any sector of such a circular flux there is at 180° on the opposite side a sector in which the flow is of opposite direction. [This is more easily seen if the circle is really small]. Since opposing flows repel, this causes an expansive pressure, working from the inside to the outside on the entire circular SQF-flow. This pressure wants to divert the flow, as is well seen in the field lines of a bar magnet, especially at the poles (Fig. 7). On the other hand, the static pressure of the medium exerts a radial pressure from the outside on the SQF trying to compress it at right angles to the direction of flow

(a) (b) Fig. 6 Pinch-Effect

Electrodynamic effect of current surges (200 000 A, period of discharge 30 ms). (a) copper sheet 300 x 75 x 0.2 mm; (b) copper tube 300 mm long, diameter 15 mm, wall thickness 0.3 mm; (c) basket antenna with 8 wires ea

Illustrations

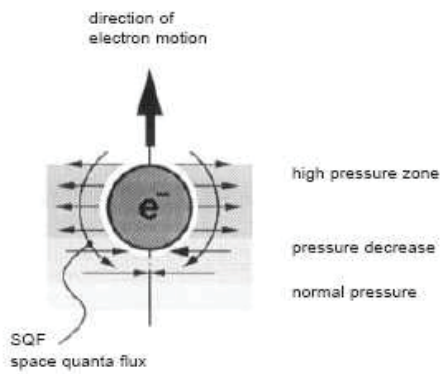


Fig. 1. SQF of moving, negative charge (electron)

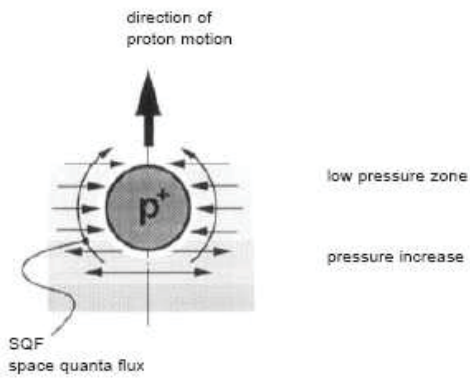
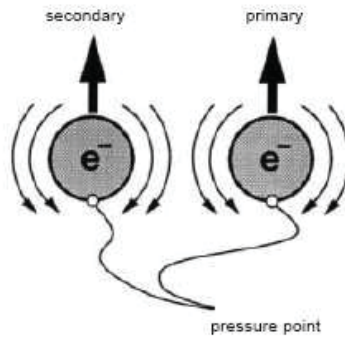


Fig. 2. SQF of moving, positive charge (proton)



(a)



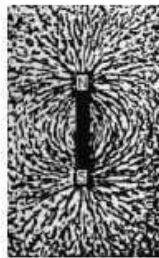
(b)



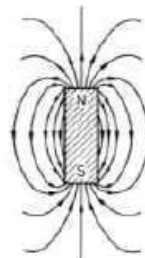
(c)

Fig. 6 Pinch-Effect

Electrodynamic effect of current surges (200 000 A, period of discharge 30 ms). (a) copper sheet 300 x 75 x 0.2 mm; (b) copper tube 300 mm long, diameter 15 mm, wall thickness 0.3 mm; (c) basket antenna with 8 wires each 4 mm diameter. Photos (a), (b) and (c) each show object before and after current surge.

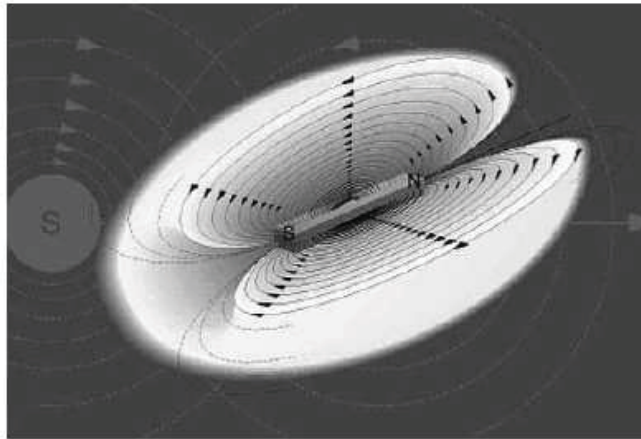


(a)



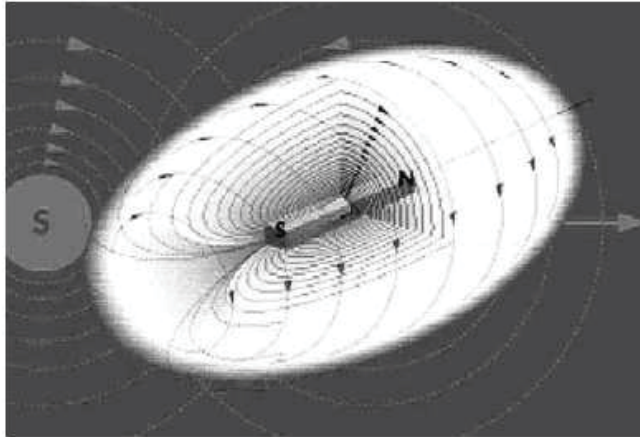
(b)

Fig. 7. Field lines of a bar magnet (a) made visible with iron filings (powder); (b) some lines drawn (disregard vector arrows). Both pictures correspond to a cross section of the SQF.



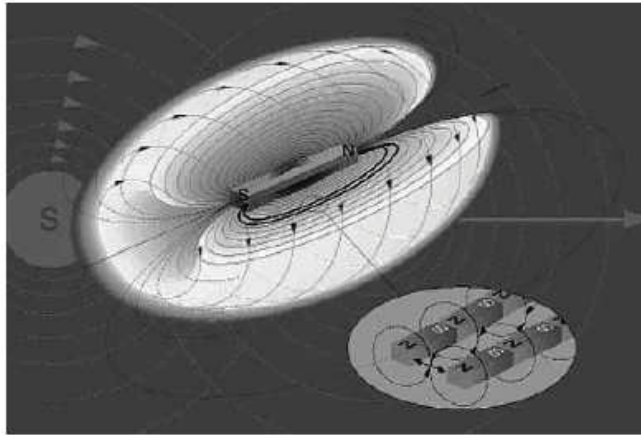
Previous Representation of the Magnetic Field

The previous representation of the magnetic field with vector arrows pointing from the north pole to the south pole.



New Representation of the Magnetic Field

The magnetic Space-Quanta-Flux SQF_m according to O. Crane. The rotation of the magnetic flux is in a clockwise direction around the longitudinal axis, when looking at the southpole of a bar magnet.



Space-Quanta-Flux and Field Lines

The magnetic Space-Quanta-Flux SQF_m according to O. Crane and the mutual repelling of the field lines (shown enlarged), based on the theory of the repelling of flows in opposite directions. (Fluid Dynamics according to Daniel Bernoulli, 1700-1782).

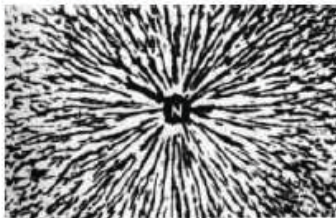


Fig. 7c. Magnetic field lines coming from the pole of a bar magnet which is standing upright. The SQF is being forced apart.

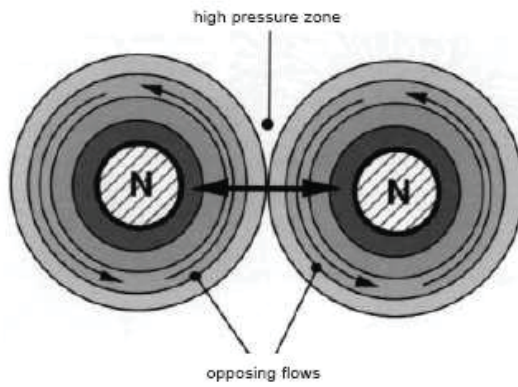


Fig. 8a. Repelling of opposing SQF

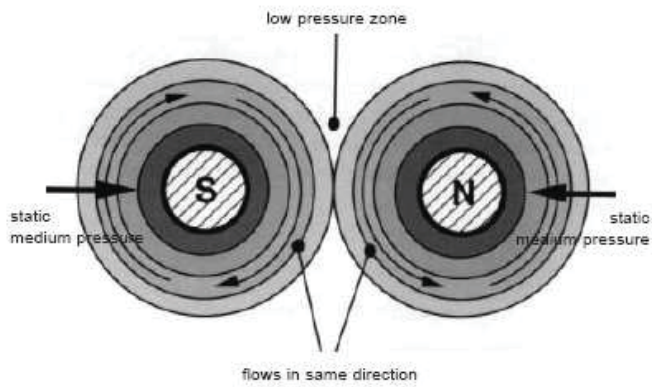


Fig. 8b. Effect of low pressure ("attraction") of SQF in same direc-

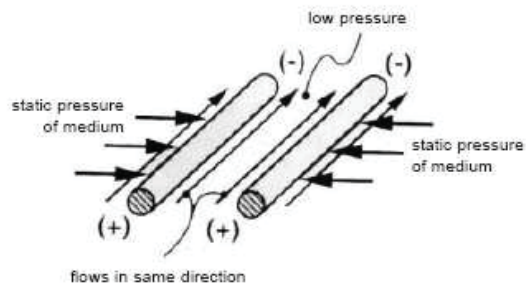


Fig. 9a. Effect of low pressure ("attraction") of SQF in same direction.

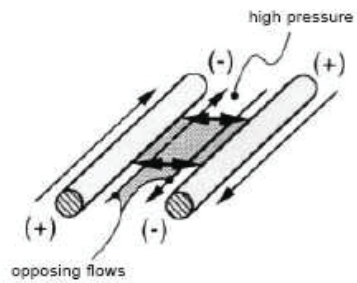
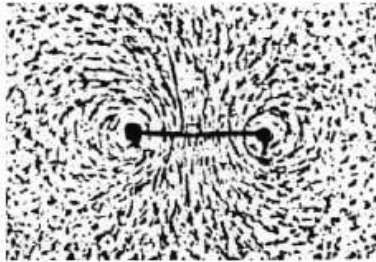
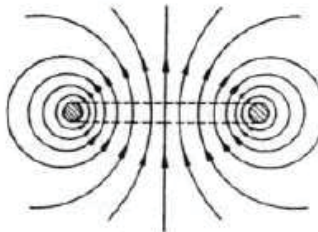


Fig. 9b. Repelling of Opposite SQF.



(a)



(b)

Fig. 10. Picture of Magnetic Field Lines of a Current Loop: (a) made visible with iron powder (b) drawn (please disregard vector arrows). Both pictures are a cross section of the SQF.

SQF of electron
seen from above

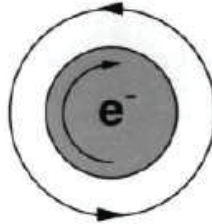


Fig.11a. Spin-Magnetism (Spin-SQF_m) of Electron

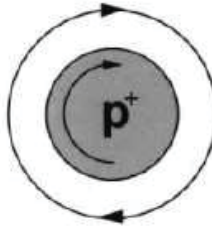


Fig.11b. Spin-Magnetism (Spin-SQF_m) of Proton

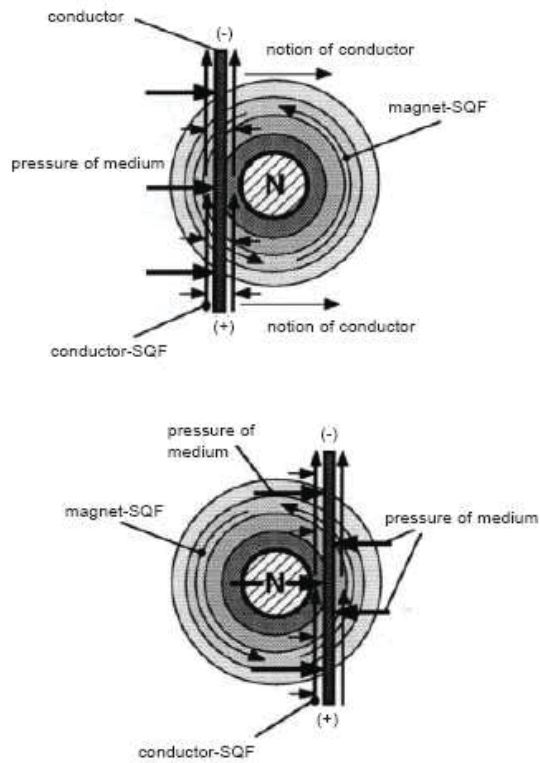


Fig. 12. Effects on a Current Carrying Conductor in a Magnetic Field

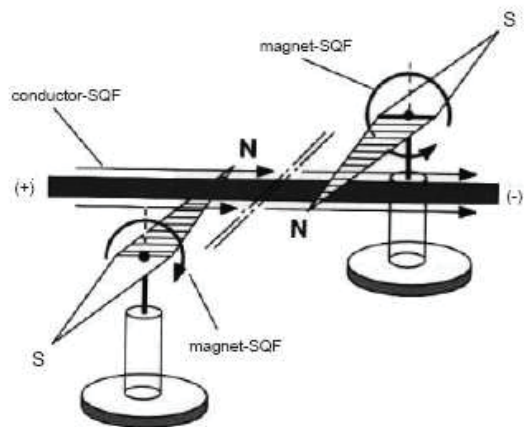


Fig. 13. The magnetic needle will so position itself that the SQF of the conductor and the SQF of the needle form unidirectional flows

Fig. 14a. Proof of unidirectional SQF on a vertical conductor.

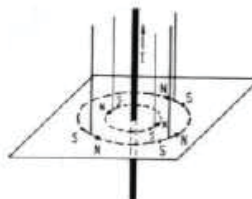
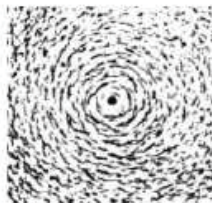


Fig. 14b. Using iron powder to make visible the cross section of SQF in a plane at right angles to the conductor.

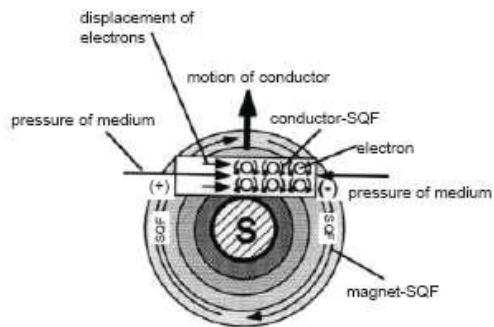


Fig. 15. Inductive Effects on Moving Conductors in a Magnetic Field.

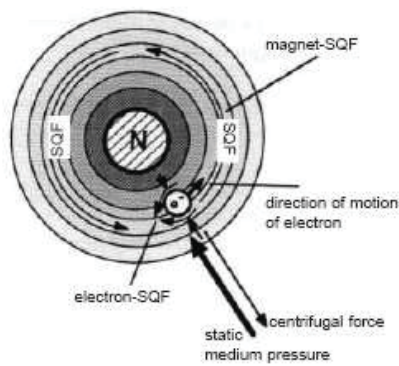


Fig.16. Effects on Moving Electric Charges in a Magnetic Field.

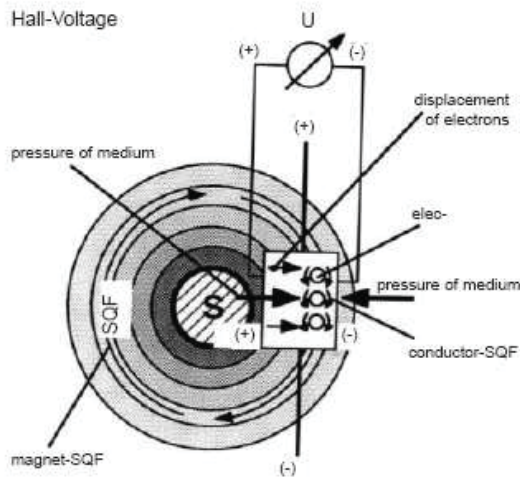


Fig. 17. Hall-Effect

<http://jnaudin.free.fr/html/sergeimg.htm>

The "Monstein Effect" Experiment - Tests Report

by

Sergei M. Godin

02/17/98

" I used dozen small FeBa permanent magnets, located in a plastic ring. A motor from old HDD 5" was used. Ring with magnets was centered and fixed between two alluminium disks. This design speeded up to 6000 rpm, then power was switched off and time up to a total stop was measured. "

" For effect strengthening, I have decided to increase the sizes and weight of a magnet. I have found a FeBa magnet with a external diameter 11 cm., internal diameter 4,5 cm. and thickness 1,5 cm. The magnet placed horizontally, northern pole upwards. All design was centered and clamped above by alluminium plate for increase of rigidity. The speed of rotation was defined by the frequency-meter and Hall sensor incorporated in a motor."

Comment: magnet size: D=61mm, d=24mm, h=4mm

Distance between magnet and metallic desk of the motor - 45mm

Cooper foil thick - 0.1mm

Unfortunately, Monstein Effect was not confirmed, all results may be explained by aerodynamics and vibration effects.

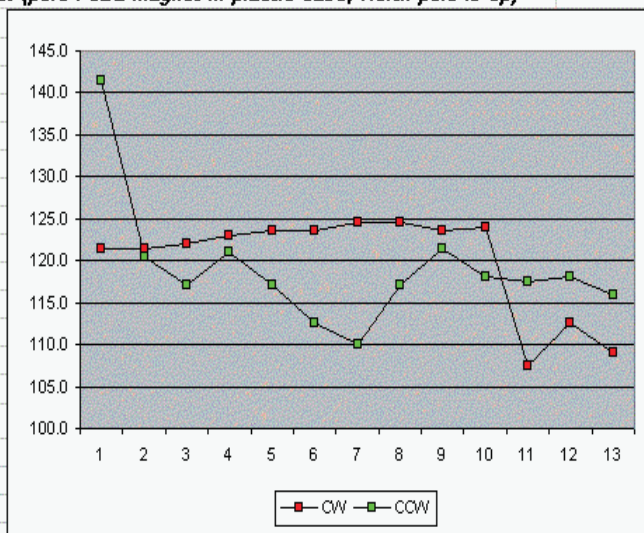
Experiments with big magnet to be continued...(Feb 10, 1998)

Sergei M. Godin
serjio@glasnet.ru



6000 rpm To Full Stop Time in sec. (pure FeBa magnet in plastic case, North pole is up)

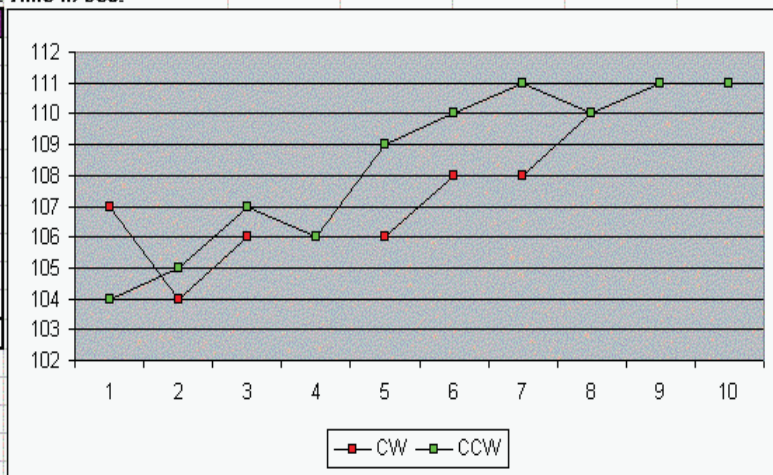
Num	CW	CCW	CCW-CW
1	121.5	141.5	20.0
2	121.5	120.5	-1.0
3	122.0	117.0	-5.0
4	123.0	121.0	-2.0
5	123.5	117.0	-6.5
6	123.5	112.5	-11.0
7	124.5	110.0	-14.5
8	124.5	117.0	-7.5
9	123.5	121.5	-2.0
10	124.0	118.0	-6.0
11	107.5	117.5	10.0
12	112.5	118.0	5.5
13	109.0	116.0	7.0
	120.0	119.0	-1.0



Next day test. The same magnet, North pole is UP

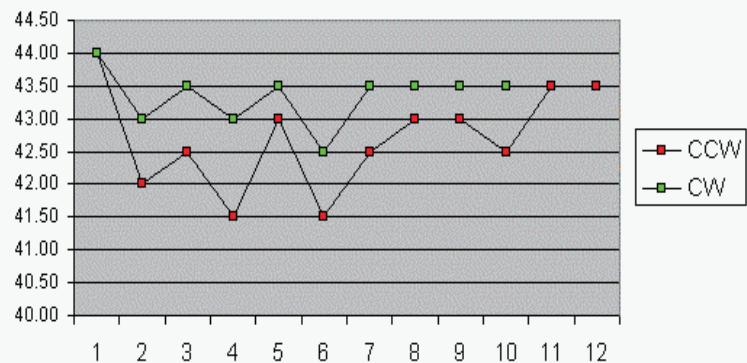
6000 rpm. To Full Stop Time in sec.

Num	CW	CCW
1	107	104
2	104	105
3	106	107
4	106	106
5	106	109
6	108	110
7	108	111
8	110	110
9	111	111
10	111	111
	107.7	108.4



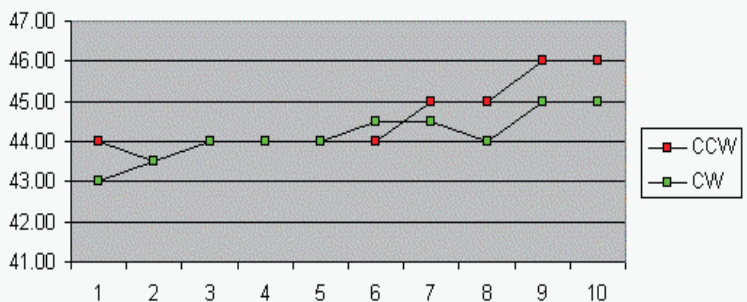
The same test conditions, magnet in dielectric case. (9000 to 3000 rpm Time in sec.)

Num	CW	CCW
1	44.00	44.00
2	43.00	42.00
3	43.50	42.50
4	43.00	41.50
5	43.50	43.00
6	42.50	41.50
7	43.50	42.50
8	43.50	43.00
9	43.50	43.00
10	43.50	42.50
11	-	43.50
12	-	43.50
	43.35	42.71



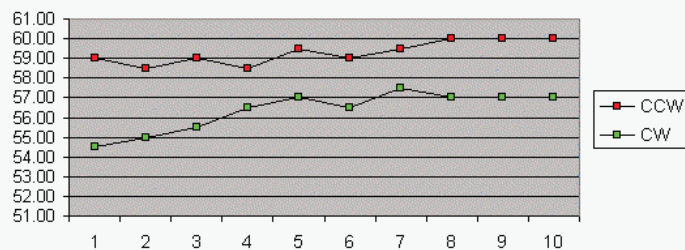
FeBa magnet was fully wrapped in cooper foil (9000 to 3000 rpm Time in sec.)

Num	CW	CCW
1	43.00	44.00
2	43.50	43.50
3	44.00	44.00
4	44.00	44.00
5	44.00	44.00
6	44.50	44.00
7	44.50	45.00
8	44.00	45.00
9	45.00	46.00
10	45.00	46.00
	44.15	44.55



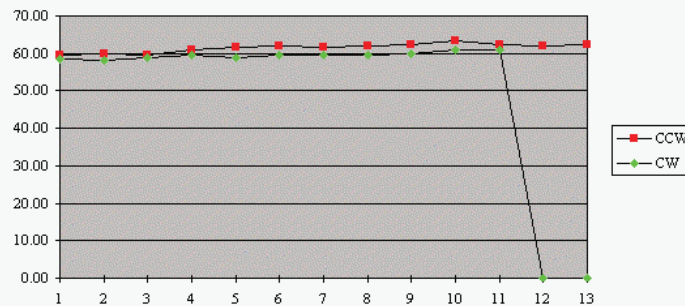
FeBa magnet was fully wrapped in cooper foil, speed was increased (12000 to 3000 rpm time)

Num	CW	CCW
1	54.50	59.00
2	55.00	58.50
3	55.50	59.00
4	56.50	58.50
5	57.00	59.50
6	56.50	59.00
7	57.50	59.50
8	57.00	60.00
9	57.00	60.00
10	57.00	60.00
	56.35	59.30



Next day test, the same conditions: N pole is up, magnet was wrapped by cooper foil, 12000 to 3000 rpm time)

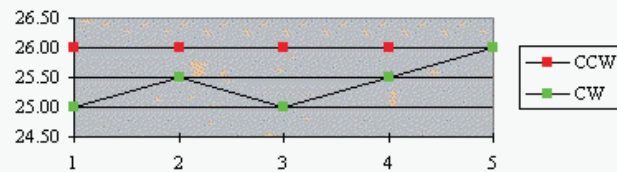
Num	CW	CCW
1	58.50	59.50
2	58.00	60.00
3	59.00	59.50
4	59.50	61.00
5	59.00	61.50
6	59.50	62.00
7	59.50	61.50
8	59.50	62.00
9	60.00	62.50
10	61.00	63.50
11	61.00	62.50
12	-	62.00
13	-	62.50
	59.50	61.54



For exact motor testing, magnet rotor was removed from the plastic platform.

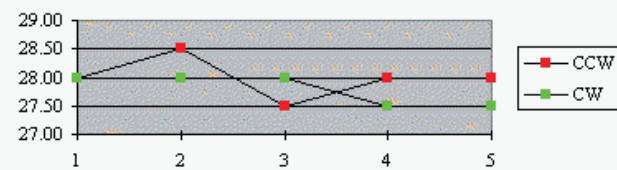
Speed - the same: 13500 to 6000 rpm

Num	CW	CCW
1	25.00	26.00
2	25.50	26.00
3	25.00	26.00
4	25.50	26.00
5	26.00	26.00
	25.40	26.00



Plastic platform than was removed for pure motor testing.(for low airdynamics)

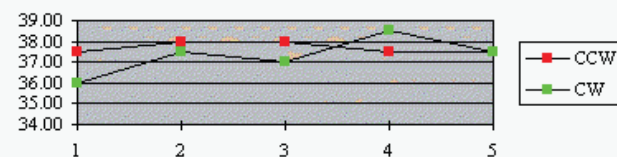
Num	CW	CCW
1	28.00	28.00
2	28.00	28.50
3	28.00	27.50
4	27.50	28.00
5	27.50	28.00
	27.80	28.00



For testing inner motor magnets influence, speed was increased to 18000rpm

Vibration was very low. 18000 to 6000 rpm time:

Num	CW	CCW
1	36.00	37.50
2	37.50	38.00
3	37.00	38.00
4	38.50	37.50
5	37.50	37.50
	37.30	37.70



Vladimir ROSCHIN & Sergi GODIN (# 3)

Homopolar Machine

Continuing research with the Searl Effect ...

[[PDF](#)]

An Experimental Investigation of the Physical Effects in a Dynamic Magnetic System

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Received June 16, 2000

Abstract—It is demonstrated that a magnetic system based on rare-earth magnets is capable of converting various forms of the energy, provided that certain critical operating regime is set. As the critical regime is attained, the experimental setup becomes energetically fully autonomous. This is accompanied by local variations in the total structure weight, a decrease in the surrounding air temperature, and the formation of concentric “magnetic walls” at a distance of up to 15 m from the experimental setup. © 2000 MAIK “Nauka/Interperiodica”.

USP 6822361

Orbiting Multi-Rotor Homopolar System

[[PDF](#)]

Vladimir V. Roschin, et al

An orbiting multi-rotor homopolar machine employs axially parallel, cylindrical, electrically conductive magnets arranged circumferentially around vertical axis of central stator ring, intimately contacting and engaging non-slip rolling between rotor magnets and stator. A bearing rotatably...

Inventors: Vladimir Vitalievich Roschin, Sergi Mikhailovich Godin

Assignee: Energy & Propulsion Systems LLC

U.S. Classification 310/178; 310/114

International Classification H02K 3100

Citations

Patent Number Title Issue date

406068 WIRE CABLE Jul 2, 1889

645943 GUSTAF DALEXN AND ARTHUR EULTQVIST Mar 27, 1900

3185877 DIRECT CURRENT HOMOPOLAR GENERATOR May 25, 1965

3465187 HOMOPOLAR GENERATOR HAVING PARALLEL POSITIONED FARADAY

DISK STRUCTURES Sep 2, 1969

5241232 Homopolar motor-generator Aug 31, 1993

5278470 Homopolar machine which acts as a direct current (DC) high voltage generator or motor Jan 11, 1994

5977684 Rotating machine configurable as true DC generator or motor Nov 2, 1999

6051905 Homopolar generator Apr 18, 2000

Referenced by

Patent Number Title Issue date

7459823 Resonant unipolar generator Dec 2, 2008

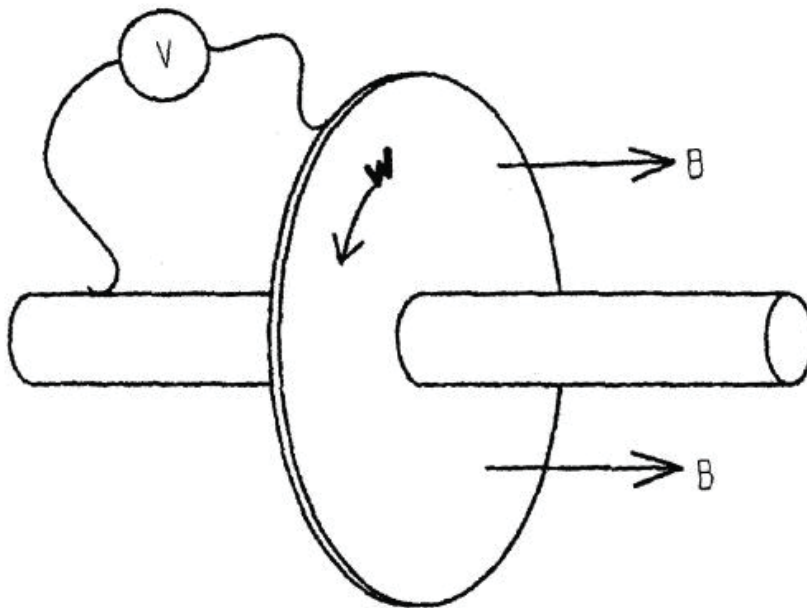


FIG. 1
PRIOR ART

FIG. 1 is a prior art diagram of a typical homopolar generator.

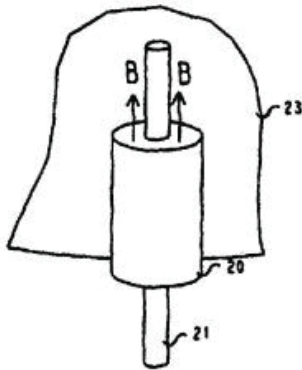


FIG. 2

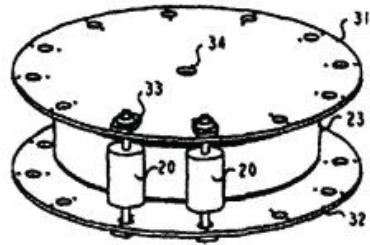


FIG. 3

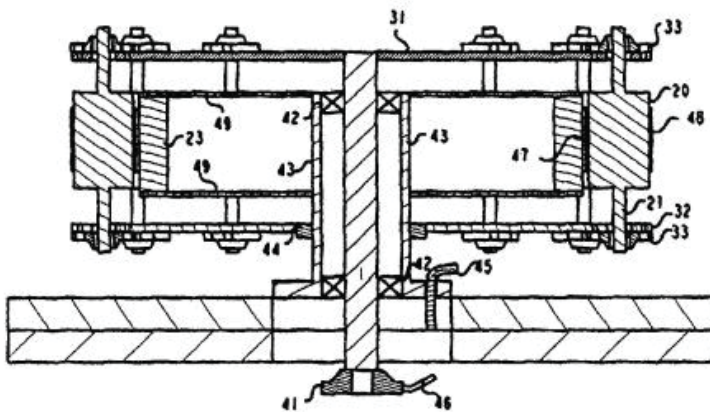


FIG. 4

FIG. 2 is a perspective, cutaway view of the magnetized rotor and stator.

FIG. 3 is an elevational view of the complete orbiting multi-rotor machine.

FIG. 4 is a cross sectional view of the invention.

FIELD OF THE INVENTION

[0003] This invention relates generally to the field of direct current electrical motors and generators that operate without the need for commutation and/or rectification, and more particularly to multi-rotor homopolar machines which derive their emf (electromotive force) from co-rotational magnets and metallic disk embodiment.

BACKGROUND

[0004] Back in 1831, Michael Faraday discovered that a cylindrical magnet suspended by a string and touching a mercury bath at the bottom could generate electricity while spinning along its axis if a second electrical contact was made at the periphery of the midpoint of the magnet. His experiment was a one-piece homopolar machine since the magnet and conductor were joined together. Such Faraday generators have also been called acyclic, unipolar or homopolar generators because no commutation or alternating of the magnetic poles is necessary for this machine in order to generate electricity.

[0005] The type of electrical output is most often direct current (DC) unless specific means are designed to provide an interruption of radial conduction and thus simulate alternating current (AC). Historically, DC was championed by Thomas Edison during the early part of the 20th century while at the same time AC was championed by Nikola Tesla and George Westinghouse. In the future, DC will be coming back into style with the emergence of ambient temperature superconductive cables. Therefore, highly efficient homopolar generators will be in demand to meet the future market demand for DC electricity.

[0006] Homopolar generators usually have a single disk or drum rotating in a stationary magnetic field with sliding contacts. The sliding contacts often present high resistance however. The construction and operation of homopolar machines for electric propulsion of marine vessels or railguns for example is already well known. Such machines include motors and generators wherein electrical current flows through a conductor situated in a magnetic field during rotation of the machine rotor.

[0007] In the case of a homopolar motor, the current will develop a $\mathbf{J} \times \mathbf{B}$ force perpendicular to the direction of its flow through the conductor and that of the magnetic field. In the case of a homopolar generator, a voltage dependent on the rotational speed, magnetic field, and radius, is induced in a conductor moving within the magnetic field. When current is drawn from the homopolar generator, it also develops a $\mathbf{J} \times \mathbf{B}$ force for the same reason as with the motor but is referred to as back torque or armature reaction. General reference information including basic principles used to reduce back torque can be found in *The Homopolar Handbook* by Thomas Valone (ISBN 0-9641070-1-5).

[0008] The prior art rarely includes a one-piece homopolar machines that rotate the magnet with the disk. Even more unknown is the concept of rolling contacts. Eliminating sliding contacts is shown in the "Planetary Homopolar Generator," IBM Technical Disclosure Bulletin, Vol. 17, No. 6, p. 1786-87, November, 1974, H. D. Varadarajan.

[0009] Using a conducting belt or rolling contacts to gather current from a magnetic field flux cutting rotor, there is an annular magnetic field through which the rotor executes a planetary

motion.

[0010] The large stresses resulting from the centrifugal force of the massive, unbalanced planetary rotor is a distinct disadvantage, prohibiting high speed operation. Thus, only a low rate of rotation is possible with the IBM design.

[0011] The "Direct Current Homopolar Machine" U.S. Pat. No. 5,587,618 to Hathaway demonstrates an analogous concept of relative motion between conductive orbiting shaft and a stationary disk-shaped magnetized armature.

[0012] However, the design is a bit cumbersome to be practical. Science Applications International Corporation claims a conductive belt, dual disk "Homopolar Motor-Generator" in U.S. Pat. No. 5,241,232 to Reed that apparently reinvents the "Dynamo Electric Machine" of U.S. Pat. No. 406,968 patented by none other than Nikola Tesla in 1889 that also has two unipolar magnetized rotors connected by a conductive belt. The belted dual unipolar machines solve one of the problems that plague the field by offering two sliding contacts at the low speed surface on the axle. However, the present invention requires only one sliding contact on the axle. These conductive belt machines also demonstrate, in principle, the concept of a multi-rotor, planetary design, by the process of coordinate transformation, since relative motion is the key to the operation of a homopolar generator. The concept of rolling contact is demonstrated with the Dalen "Dynamo Electric Machine" U.S. Pat. No. 645,943, where two disks are turning in opposite directions while in contact with each other at their periphery. However, the axle of each disk must remain fixed in place whereas each axle is in orbiting motion in the present invention.

[0013] Homopolar machines can reversibly function as motors as well, such as flywheels, and used as energy storage devices. First used in transportation applications in the 1950's, flywheel powered buses were designed to have the flywheel accelerated at every stop. Composite rotors currently have been developed which can spin at very high revolutions (100,000 revolutions per second); and the speed is limited by the tensile strength of the rim of the rotor. By using a multi-rotor design, the centrifugal forces of a large disk can be greatly reduced and still maintain high-energy storage or production. By using magnetic bearings, the friction on the axis of the rotor can be reduced sufficiently so that such rotors can maintain most of the energy for several days.

[0014] The IBM Varadarajan planetary rotor is unbalanced and has a low rate of magnetic flux cutting due to its annular magnetic field design. The Hathaway direct current machine has a lot of unbalanced conductive material orbiting the central magnetized disk which limits the rotational speed.

[0015] The conductive belt designs can be subject to oxidation and slippage, even requiring a toothed timing belt on each axle as well. With most disk models of homopolar generators, as opposed to drum designs, sliding contacts are the single most important contribution of resistance inhibiting the power output of the machine. Internal resistance is the only limit to the output capability of a homopolar generator and it is important to reduce all sources of internal resistance to obtain maximum power output for a given input torque. Rather than use high resistance carbon brushes, medium resistance silver-graphite brushes or dangerous conductive liquids such as mercury, low temperature solder, or sodium-potassium, there is a need to

eliminate frictional sliding contact at the high speed periphery of the magnetized rotor completely. Furthermore, rather than maintaining two sliding contacts which contribute friction and resistance, even in the rolling and belted designs, there is a need to cut the number in half to only one high current sliding contact. The present invention satisfies both of these needs.

SUMMARY

[0016] The present invention derives direct current electricity by co-rotating a plurality of magnets and a metallic disk. It comprises an improved homopolar machine with dynamically balancing, axially parallel, cylindrical, electrically conductive magnets arranged circumferentially around the vertical axis of central stator ring. Such a design can be referred to as distributed generation since each magnet rotor generates only a fraction of the current that is transmitted through the machine. Thus, the conductive bearings contacting the center of each end of the magnet rotors may carry only one tenth or less of the total current.

[0017] The multi-rotor orbiting homopolar also does not include sliding contacts at each magnetized rotor rim but instead utilizes a suitable rolling means attached separately to magnets and also to the stator ring for intimately contacting and engaging non-slip rolling between magnets and stator as they orbit around the stator. The magnetized rotors maintain rotational synchronism and equal relative position to each other with a bearing means rotatably securing the top and bottom end of each magnet to a corresponding electrically conductive circular endplate.

[0018] The electrical energy is extracted, or input if used as a motor, through contacts on the conductive stator and at the machine's electrically conductive axle located in the center of the machine while rigidly attached to the top circular endplate that rotates with all of the individually magnetized rotors. The only single, high current, moving contact that is required is an electrically conductive thrust bearing that supports the central axle. An insulating thrust bearing meanwhile separates the axle from the center of bottom circular endplate. The stator, which is of course stationary, accomplishes the second contact means through a standard electrical connection with no need for any relative motion sliding contact. The stator may be optionally magnetized in the opposite direction to the magnetized rotors in order to increase the coercive force or magnetic flux density.

[0019] The drawings constitute a part of this specification and include exemplary embodiments to the invention, which may be embodied in various forms. It is to be understood that in some instances various aspects of the invention may be shown exaggerated or enlarged to facilitate an understanding of the invention.

The Problem

[0020] The problem this invention solves is that it generates high power direct current electricity without the need for commutation and rectification, otherwise the internal resistance losses are high.

[0021] The problems with prior art devices, processes and systems can be categorized as follows.

[0022] 1. Require commutation or rectification to generate direct current electricity.

[0023] 2. Rely on more than one current brush which often have high speed contact.

[0024] 3. Do not distribute magnetic field power generation by multi-rotor orbiting magnets in homopolar machines or systems.

[0025] 4. Internal resistance losses are usually high.

[0026] 5. Neither efficient nor cost effective.

[0027] 6. Neither simple nor practical for most applications.

Prior Art

[0028] A preliminary limited prior art search was not commissioned but the inventor is intimately familiar with the prior art. Following are typical examples of the prior art arranged in reverse chronological order for ready reference of the reader.

[0029] 11) Non-Provisional Utility U.S. Pat. No. 6,051,905 issued to Richard Clark on Apr. 18, 2000 for "Homopolar Generator"

[0030] 10) Non-Provisional Utility U.S. Pat. No. 5,977,684 presented to Ted Lin on Nov. 2, 1999 for "Rotating Machine Configurable as True DC Generator or Motor"

[0031] 09) Non-Provisional Utility U.S. Pat. No. 5,864,198 earned by Joseph Pinkerton on Jan. 26, 1999 for "Brushless Generator"

[0032] 08) Non-Provisional Utility U.S. Pat. No. 5,587,618 issued to George Hathaway on Dec. 24, 1996 for "Direct Current Homopolar Machine"

[0033] 07) Non-Provisional Utility U.S. Pat. No. 5,278,470 granted upon Zacharias Neag on Jan. 11, 1994 for "Homopolar Machine which acts as a Direct Current (DC) High Voltage Generator or Motor"

[0034] 06) Non-Provisional Utility U.S. Pat. No. 5,241,232 honorably given to Jay Reed on Aug. 31, 1993 for "Homopolar Motor-Generator"

[0035] 05) Non-Provisional Utility U.S. Pat. No. 5,011,821 published in the name of Charley McCullough on Apr. 30, 1991 for "Method and Apparatus for Generating Electricity"

[0036] 04) Non-Provisional Utility U.S. Pat. No. 3,465,187 issued to Onezime Breaux on Sep. 2, 1969 for "Homopolar Generator Having Parallel Positioned Faraday Disk Structures"

[0037] 03) Non-Provisional Utility U.S. Pat. No. 3,185,877 presented to Anthony Sears on May

25, 1965 for "Direct Current Homopolar Generator"

[0038] 02) Non-Provisional Utility U.S. Pat. No. 645,943 granted upon inventor Gustaf Dalen on Mar. 27, 1900 for "Dynamo Electric Machine"

[0039] 01) Non-Provisional Utility U.S. Pat. No. 406,968 bestowed upon none other than Nikola Tesla himself in 1889 for "Dynamo Electric Machine"

[0040] None of the prior art devices known to the applicant or his attorney disclose the EXACT embodiment of this invention that constitutes a simple, elegant and affordable system for an orbiting Multi-Rotor Homopolar direct current electricity generation

Objectives

[0041] Unfortunately none of the prior art devices singly or even in combination provide for all of the objectives as established by the inventor for this system as enumerated below.

1. It is an objective of this invention to provide devices, method and system for generation of high power direct current electricity without commutation and rectification.
2. The primary objective of the invention is orbiting multi-rotor cylindrical magnets in rolling contact that eliminates friction while generating DC electricity.
3. Another objective of the invention is to provide high efficiency, low noise and low resistance in a high current generator.
4. Another objective of the invention is that it uses readily available materials in a dynamically balanced arrangement.
5. Another objective of the invention is safety through reduced internal stress than comparable homopolar machines with a single rotor.
6. Another objective of the invention is that it provides distributed generation around an air core.
7. Another objective of this invention is to provide an easy, quick, simple practical way to generate more efficient and cost effective direct current electricity.
8. Another objective of this invention is that it promote and encourage other inventors to do additional research in homopolar machines generally but co-rotational magnets and disk embodiments in particular.
9. Another objective of this invention is to provide a system that is integrated and flexible.
10. Another objective of this invention is to provide a system that is easily useable and requires little if any training for manufacturing and use.

11. Another objective of this invention is that it meet all federal, state, local and other private standards guidelines, regulations and recommendations with respect to safety, environment, and energy consumption.

12. Another objective of this invention is that it can be made from modular standard materials and components that are also easily maintainable.

[0054] Other objectives advantages and features of this invention reside in its simplicity, elegance of design, ease of manufacture, service and use and even aesthetics as will become apparent from the following brief description of the drawings and the detailed description of the best mode preferred embodiments taken in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a prior art diagram of a typical homopolar generator.

FIG. 2 is a perspective, cutaway view of the magnetized rotor and stator.

FIG. 3 is an elevational view of the complete orbiting multi-rotor machine.

FIG. 4 is a cross sectional view of the invention.

FIG. 5 is a plan view from the top of the invention.

DETAILED DESCRIPTION OF THE BEST MODE PREFERRED EMBODIMENT

[0060] As shown in the drawings wherein like numerals represent like parts throughout the several views, there is generally disclosed in FIG. 1 is a state of the prior art.

[0061] Detailed descriptions of the preferred embodiment are provided herein. It is to be understood, however, that the present invention may be embodied in various forms. Therefore, specific details disclosed herein are not to be interpreted as limiting, but rather as a basis for the claims and as a representative basis for teaching one skilled in the art to employ the present invention in virtually any appropriately detailed system, structure or manner.

[0062] Turning first to FIG. 2 there is shown a perspective cutaway view of a portion of one embodiment of the present invention showing one of a multitude of rotors that are axially magnetized (B). This multitude mounted in parallel comprise the multi-rotor homopolar machine in close contact with a ring shaped stator that may be optionally magnetized in the direction opposite to the magnetic fields of the rotors.

[0063] Each rotor 20 has its own axle 21 which is circumferentially mounted vertically, arranged and dynamically balanced around a central vertical axis, on an electrically conductive but low permeability axle rod 21 made of copper, brass or bronze, that may penetrate the center of the entire magnetized rotor and rotatably attach to top and bottom bearing 33 on circular endplates

31, 32 shown in FIG. 3. In operation, the rotors orbit around the circular stator ring, which may or may not also be magnetized.

[0064] The invention is more completely shown in the elevational view of FIG. 3 with several rotors 20 rotatably attached to the top circular endplate 31 and bottom circular endplate 32 by electrically conductive bearings 33. The top endplate 31 is rigidly attached to the central axle 34 supporting the orbiting multi-rotor homopolar generator assembly. The hollow circular design of the stationary ring stator 23 is also visible in FIG. 3, which can be optionally magnetized to increase performance output.

[0065] The bottom circular endplate 32 has a large hole in the center, more completely seen in FIG. 4, that allows inner attachment to insulating bearing 44 which optimally can be a non-contacting, low friction magnetic bearing since the weight of the rotor assembly is carried by the electrically conductive thrust bearing 41. The bottom endplate 32 is thus isolated electrically from the stationary Inner cylinder 43 that is the inner core of the stator. Inner circular assembly plates 49 of equal size and shape, that preferably are electrically conductive, rigidly attach the inner cylinder 43 to the stator ring 23. In accordance with the present invention, FIG. 4 shows the side cross sectional view edge on with a cutaway so that the central axle 34 and hollow inner cylinder design 43 is visible.

[0066] The insulating bearings 42 separate the central axle 34 from the inner cylinder 43. Both bearings 42 and 44 electrically maintain the separation of polarity of the electromotive force (emf) voltage of each rotor. The positive or negative polarity of the conductors depends of course on the rotation direction of the rotor magnets. One conductor 45 is electrically emerging from the stator assembly and ultimately emanates from the outer edge of each rotor 20 with the homopolar effect conducting the generated electricity through the rolling means 47 and 48. The opposite polarity conductor 46 is electrically emanating from the center axle 21 of each rotor 20 is connected to the electrically conductive thrust bearing 41.

[0067] In accordance with an important function of the present invention, there is shown in FIG. 4 one embodiment of an intimately contacting and engaging nonslip rolling means 47 and 48. As is well-known in the industry where good traction with a high coefficient of friction (1.6 or better) but sufficiently low electrical resistance is desired between two surfaces, an adherent coating of copper can be used on both facing surfaces of the stator 23 and rotor 20. For the copper coating, electro-deposition can be used or flame spraying of copper on the rotor and stator outer surfaces.

[0068] Another embodiment of rolling means 47 and 48 utilizes a geared electromechanical rotary joint developed by NASA Goddard Space Center (NASA Tech Briefs, December, 1994) which offers the advantage of a springy, low noise planetary gear contacting a stator ring gear. It was designed by NASA to overcome the disadvantages of sliding contacts and to ensure high traction desired for rolling electrical contacts.

[0069] The springy gears are made from beryllium copper which is a self-cleaning material with, in one embodiment, an average diameter of 6.35 mm with any reasonable number of teeth. Another concept to creating a rolling contact utilizes a magnetic sprocket design with small rare

earth (samarium cobalt for example) magnets embedded perpendicularly in the surfaces of the stator ring and rotor magnets. The magnetic sprocket thus utilizes equally spaced magnets mounted normal to the axes of the stator and rotor.

[0070] To demonstrate an important feature of the invention, there is shown in FIG. 5 a plan view from the top of the balanced distribution of the rotors 20 around the stator assembly 43 with the outer stator ring 23 that are equally spaced and preferably dynamically balanced so the centrifugal forces are equal and opposite.

Theory of Operation

[0072] The main principle of operation is based on the fact that rotating cylindrical magnets creates a homopolar emf generation from Faraday's Law and the Lorentz Force. Physically, a rotating, non-inertial reference frame configuration can only be analyzed correctly with Einstein's general theory of relativity, utilizing a Thirring metric.

[0073] Particularly, where rotating cylindrical magnets and disk are synchronized and made co-rotational, such a co-rotational configuration makes the generator one piece like the earth's magnetic field itself. As the inventors explored this correspondence more closely, it was learned that the earth's molten, electrically conductive iron core also includes not one but several vortices in a coaxial circular arrangement. The inventors stumbled upon this concept while investigating the field rotation paradox and found that an orbiting, multi-rotor homopolar generator assembly would be analogous to the earth's electrically conductive, multi-vortex, magnetic, molten iron core.

[0074] The field rotation paradox can be easily resolved by an amateur DIY (Do It Yourself) scientist by comparing the interception of a linear magnetic field vs. a rotating magnetic field. In the former configuration the meter gives the same reading whether the magnet is moved with respect to a pickup coil of wire or vice versa but in the latter configuration the meter reading is seen only when the disk is moved with respect to rotary magnetic field of cylindrical magnet but not when the magnet is moved with respect to the disk. The former is consistent with special relativity while the latter is relying on general relativity. Both are loosely termed "relativistic."

Assembly and Use

[0076] The manufacturing, assembly and use of this invention is very simple even intuitive. The system of this invention can be readily assembled from the teaching provided in this disclosure by state of the art techniques and materials by a person of average skill in the art.

[0077] The applicant has described the essence of this invention. While this invention has been described with reference to an illustrative embodiment, this description is not intended to be construed in a limiting sense. Various modifications and combinations of the illustrative embodiments as well as other embodiments of the invention will be apparent to a person of average skill in the art upon reference to this description.

Variations

[0079] Due to the simplicity and elegance of the design of this invention designing around it is very difficult if not impossible. Nonetheless many changes may be made to this design without deviating from the spirit of this invention. Examples of such contemplated variations include the following:

1. The shape and size, colors etc of the device or the packaging thereof may be modified.
2. Additional complimentary and complementary functions and features may be added.
3. The system of this invention may be adapted for other related uses.
4. Instead of cylindrical magnets, other types of magnets and mode of mounting on the disk may be employed to create the orbiting, rotational magnetic field.
5. The invention may be scaled up and down by several orders of magnitude
7. An experimental science toy version may be developed for education and entertainment of little young scientists of the future.
8. Homopolar generator may be employed in reverse as a motor to convert electrical energy into mechanical energy.
9. A homopolar servo motor version may be crafted based on this co-rotational magnet and disk concept.
10. Permanent cylindrical magnets may be replaced by equivalent configuration of electromagnets.
11. A portion of the emf generated may be fed back to cylindrical electromagnets to explore the possibility of a self-excited generator without violating any laws of nature.

[0090] Other changes such as aesthetics and substitution of newer materials as they become available, which substantially perform the same function in substantially the same manner with substantially the same result without deviating from the spirit of the invention may be made.

[0091] Following is a listing of the components used in the best mode preferred embodiment and the alternate embodiments for use with OEM as well as retrofit markets. For the ready reference of the reader the reference numerals have been arranged in ascending numerical order.

[0092] 10=Prior art generally

[0093] 20=Rotor(s)

[0094] 21=Axle, rod

[0095] 23=Stationary Ring Stator (Optionally Magnetized)

[0096] 31=Top circular end plate

[0097] 32=Bottom circular end plate

[0098] 33=Bearing

[0099] 34=Central Axle

[0100] 41=Electrically Conductive Thrust Bearing

[0101] 42=Insulating Bearing

[0102] 43=Stationary Hollow Inner Cylinder

[0103] 44=Insulating Bearing

[0104] 45=Opposite Polarity Conductor

[0105] 46=Opposite Polarity Conductor

[0106] 47=Non-Slip Rolling Means

[0107] 48=Non-Slip Rolling Means

[0108] 49=Inner Circular Assembly Plates

Definitions and Acronyms

[0110] A great care has been taken to use words with their conventional dictionary definitions. Following definitions are included here for clarification.

[0111] 3D=Three Dimensional

[0112] Acyclic=Non-cyclic, non rotational or linear

[0113] DC=Direct Current as contrasted from alternating current electricity

[0114] DIY=Do It Yourself

[0115] DYNAMO=A device for converting mechanical energy into electrical energy (& Vice versa)

[0116] EMF=Electromagnetic Force

[0117] Homopolar=Same as unipolar

[0118] Integrated=Combination of two entities to act like one

[0119] Interface=Junction between two dissimilar entities

[0120] N=Magnetic North (Permanent or electro-magnet)

[0121] N-Machine=One Piece Faraday generator

[0122] OEM=Original Equipment Manufacturer

[0123] S=Magnetic South (Permanent or electro-magnet)

[0124] Unipolar=Same as homopolar

[0125] Note: It should be noted that the prior art uses unipolar, homopolar, acyclic and Faraday Disk Dynamo interchangeably.

[0126] While this invention has been described with reference to illustrative embodiments, this description is not intended to be construed in a limiting sense. Various modifications and combinations of the illustrative embodiments as well as other embodiments of the invention will be apparent to a person of average skill in the art upon reference to this description. It is therefore contemplated that the appended claim(s) cover any such modifications, embodiments as fall within the true scope of this invention as defined by the appended claims.

[http://myemail.constantcontact.com/Future-Energy-eNews.html?](http://myemail.constantcontact.com/Future-Energy-eNews.html?soid=1102230232954&aid=reZ0ThCVt9Y)
[soid=1102230232954&aid=reZ0ThCVt9Y](http://myemail.constantcontact.com/Future-Energy-eNews.html?soid=1102230232954&aid=reZ0ThCVt9Y)

Morningstar Energy Box

1) Russian Temperature & Magnetic Anomaly Confirmed in Homopolar System

Ed. Note: The Energy Box is based on the Russian multi-rotor orbiting homopolar system US 6,822,361 awarded to Roschin and Godin. A drawing from one of their recent articles, based on the patent, is reproduced above. Sergei Godin is expected to be in attendance at the conference! If you come no other day, Tuesday March 15 is the day not to miss! -- TV

The Morningstar Energy Box (Tuesday, March 15, 4:30 PM) SPESIF-COFE4 Presentation.

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Abstract. The Morningstar Energy Box is a derivative of a Searl device modified in a similar fashion used by the Russian Scientists Godin and Roschin. These devices use laminated rollers and a main ring made of different materials used to enhance electrical and magnetic properties. Where the Searl device uses rollers to move around a main ring, the Russian device kinematically constrains these rollers within a mechanical cage. The operational theory for the Energy Box uses rotating electromagnetic fields to create gravitational effects and is different from those theories outlined by either Searl or the Russians. A prototype device is currently under test and unfortunately self-accelerated motion has yet to be obtained. The Russians have made several serious claims that their device produced self-acceleration to generate electricity, created a relatively large weight loss, generated discrete walls of magnetism far from the device and that a temperature drop exists when the device loses weight. To date, no one has validated these outrageous claims. However, we have found similar phenomenon regarding temperature loss and the discrete magnetic walls to occur during tests of the Energy Box and have correlated the temperature drop that the Godin & Roschin device produces as being a consequence of the Unruh effect. Where they claimed to lose as much as 35% of the weight of a 375 kg armature, the Energy Box only loses as much as 2% of its 490 pounds at this stage of the test cycle. Additional tests and modifications are underway to hopefully increase the weight loss.

For More information see Godin and Roschin original paper in the IRI website, describing their experiments.

<http://prlog.org/10549768>

Feb 25, 2010

Morningstar Applied Physics LLC

The Morningstar Group is a specialty firm with access to capital and access to cutting edge science using embryonic, newly emerging, and game-changing technologies. These technology ventures will initially focus upon alternative energy approaches.

FOR IMMEDIATE RELEASE

PRLog (Press Release) – Feb 25, 2010 – The Morningstar Group is headed by Paul Murad and Morgan Boardman. They are interested on developing new technologies that will change the way science is currently being pursued. They are looking into paradigm shifting /out-of-the-box technologies that will be game-changers to shape the future. The disciplines include such diverse areas as solar energy, waste management, space propulsion systems, alternative energy, ground propulsion systems, and bio-technologies. These exotic technologies may allow us to be independent of outside energy sources as well as developing alternative ways of dealing with the problems of waste management. Morningstar is a start up company and the principles of the company have over 60 years experience in aerospace and film industries collectively.

Please contact Mr. Paul Richard Price for information at 209-920-4701 or contact Mr. Paul Murad or Mr. Morgan Boardman through the www.morningstarap.com website for further

information on this very unusual venture.

The Morningstar Group is a specialty firm with access to capital and access to cutting edge science using embryonic, newly emerging, and game-changing technologies. These technology ventures will initially focus upon alternative energy approaches.

Issued By : Paul Richard Price
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Karl SCHAPPELLER Prime Mover Glowing Magnetism

Excerpt from:

Earth Energy

by

John Bigelow

In a book titled *The Physics of the Primary State of Matter*, published in the 1930s, Karl Schappeller described his Prime Mover, a 10-inch steel sphere with quarter-inch copper tubing coils. These were filled with a material not named specifically, but which is said to have hardened under the influence of direct current and a magnetic field [electro-rheological fluid]. With such polarization, it might be guessed to act like a dielectric capacitor and as a diode.

The same material is inside the rotor. The transfer of electrons upward, and the magnetic field of the sphere combine to turn the rotor. No direct conversion of this energy to electricity is described, but the rotor could be attached to a generator...

According to Schappeller, the amount of this sustaining rotation of the device would be termed 'glowing magnetism' and be located at the center of the sphere. Present day terminology might be 'plasma'.

Excerpt from:

The Physics of the Primary State of Matter

by **Cyril Davson**

1955

The New Technique ~

The important fact from the point of view of the New Technique is that the only source of primary magnetism is glowing core of hydrogen energy, or the primary magnetism as force is magnetism in the glowing state, or glowing magnetism, which is the Primary Force, or if we must use the present terms, the atomic force, the chemical composition of which is a hydrogen energy core interacting through mobility with its complementary cold oxygen energy stress field, the physics of which has already been explained.

The fulcrum or basis of the New Technique based on the physics of the Primary State is thus the production of a core of glowing magnetism, the greatest available force within the reach of man, and in the Cosmos the great creative origin-force in all Nature.

In the cosmos we learned that the essential factor to the formation of a glowing core was the establishment of a magnetic point of inequality in the otherwise latent homogenous stress field.

Obviously, we have not the same faculties as are available in the cosmos, and so the crux of the whole problem in the New Technique is this forming of a point of inequality in the ether, under such conditions that a glowing hydrogen core, or glowing magnetism, will form as a space-form impression entity and be maintained as such.

Primary magnetism, or a glowing hydrogen core of energy, is always spherical, because it forms radially concentrically on the point of inequality.

It is therefore clear that the first technical problem we have to solve is: what form of technical appliance is there which will put a spherical stress on any given point in the ether? The stress must, of course, be magnetic or electromagnetic in quality and thereby exert a suction on the ether on and to this point so that the surrounding ether will be drawn in, catalyzed, and finally radiated out as a stimulated stressfield which can be made to perform work of all kinds, just as the electric current is now used to produce mechanical power, light, heat and electrolysis for all forms of industrial purposes. There is a similar medical application to healing, radiology, diathermy and electrotherapy through ionization of the particular salts or drugs required by any given condition of the body, and multifarious other applications (See Part III).

So we now have as our guide the fact that the appliance must be capable of continually receiving and holding an electromagnetic charge, the form of which must be spherical.

The appliance nearest to this at present available is perhaps the solenoid, which is simply a coil of wire through which an electric current is passed. The electric current produces a magnetic

field round the wire coil on which the ether exerts a force of attraction or a suction force, because the ether itself is latent magnetism; and we know that if through the center of this coil or solenoid we insert a bar of steel the magnetic stress from the solenoid will be induced into the steel bar, and the bar will be said to be magnetized.

Suppose, therefore, we produce a magnetic field of spherical form, that is, wind our wire in the form of a sphere, and provide it with a suitable support and covering. This would hardly satisfy our requirements,

(1) because an electric current will always have to be supplied from an exterior source;

(2) because this type or quality of magnetic field would only magnetize a piece of iron or steel placed in the center of the spherical solenoid and the Ether would not react to this type of gauss field;

(3) the current in the solenoid is held adhesively to the cohesive force of the wire and cannot therefore put a stress on a point in the geometric center of the spherical solenoid, as its complementary stressfield in this case is the cohesive force of the wire itself and it has thus no complementary stressfield or contra-pole external to its Space-form.

It will thus be perfectly clear that a field produced as at present through the medium of passing a current through a copper wire would not fulfill the purpose, and that we require some form of field which will spring out on to its geometrical center and thus draw with it the surrounding Ether, until finally the pressure on the point from the ether compression on the constantly intruding ether brings it to the glowing state and a physical point of origin is formed on the geometrical center of the Sphere, or, as Schappeller terms this apparatus, the Stator.

The Electret ~

We have seen that the numerous so-called "effects" in Physics owe their origin to the crossing of two stressfields, e.g., Nernst, Ettinghaus, Hall, Leduc, Peltier and Thompson effects; these may be said to ring the changes between, say, heat and electricity, electricity and magnetism, and so forth; others have been cited, producing different effects, but all are caused by the same principle or law -- *that energy can neither be produced nor transformed without the crossing of two stressfields.*

An experimental physicist once declared that he had nothing to do with the "crossing of stressfields". Neither has the housewife anything to do with the "boiling of water"; she merely places the kettle on the fire, then Nature crosses the stressfields, i.e., the heat stress crosses the cohesive force or stressfield of the water. This is the case in all the effects cited above; but the components, and thus the products, differ in each case.

The deeper the study of present Physics, the more this law is firmly established.

We are now about to examine another effect, which plays an important part in the New Technique, viz., the Permanent Electret, named by the Physico-Mathematical Society of Japan in 1920.

Prof. Mototaro Eguchi (Prof. Of Physics, naval College, Tokyo) produced his own special electret, which constitutes really *the permanent magnet of the electrostatic sphere*.

He used as the dielectric, carnauba wax and resin with or without a percentage of beeswax and kept it in a strong electric field whilst slowly baking until solidification set in. Once again we have the crossing of the two stressfields, the cohesive force of the dielectric, but this time with an electric field, aided by heat stress.

The heat stress was in a plastic condition as a slowly solidifying dielectric, and the resulting effect was the permanent electrification of the dielectric, effecting a kind of dielectric polarization.

The nature of the electric charge produced in the dielectric is a permanent internal electrification entirely different from the superficial electrification.

For example, the electrification cannot be destroyed by different treatment applied to the surface, e.g., a Bunsen flame, x-ray exposure washing with solvents, planing with a knife, or by applying electric force in any sense.

Electrification, as opposed to mere electrification, is really therefore the electrification of the whole bound stressfield of the dielectric in question.

Heaviside coined this new term "electrification" to signify an internal electrical change of a material, which is quite different from superficial electrification.

The PP [Primary Physics] explanation of this phenomenon is that the electric fielding H and Of energy, the stressfield of the dielectric, that is, its cohesive force or energy structure, is likewise H and Of energy, and the crossing of the two stressfields brings about permanent and complete electrification of the whole mass under treatment.

It is what might be termed "occlusion", not as with gases and porous material, but "energy occlusion" made possible only by the plastic state in a slowly solidifying condition.

Eguchi declares that such an electret shows so great an intensity of electrification that the electric force exerted in front of the surface of the electret may attain the greatest sustainable value in the atmosphere -- the permanency being also so good that no sensible decay was detected for three or four years after its preparation.

The maximum attainable surface densities by mechanical friction are:

Rubbed on Wool ~ Rubbed on Silk ~

Max. surface density Max. surface density

Sealing wax 5.70 ESU 5.40 ESU
 Shellac 5.57 -- 5.12
 Sulfur 5.48 -- 5.30
 Ebonite 4.82 -- 4.43
 Amber 4.18 -- 4.11
 Glass 2.65 -- 2.90

Whereas the Permanent Electret has densities of the order of 6 to 6.2 ESU and in air in front of the surface, 7 to 7.8

The actual surface density (d) of the free charge of an electret may be calculated from observed numbers as follows:

C = Capacity of the condenser system,

V = Potential read on electrometer

R = effective radius of surface induction plate, i.e., radius of plate plus $\frac{1}{2}$ of air gap;

$$D = CV / 3.14 r^2$$

For full details of the Eguchi Electret see, *Phil. Mag.*, 1925, 1, Vol. 49)

Enough has been said to show that the electret is a fact established by actual experimentation, although here we are not concerned with the Eguchi electret, but merely with the principle involved and its significance, viz. the production of a *permanent magnet in the electrostatic sphere*.

This principle forms the basis or nucleus for our spherical field. Schappeller has not used either Eguchi's or any other form of known electret, and the purpose of citing Eguchi's experiments is merely to establish beyond all doubt that this principle is a practical and proven fact. The composition and preparation of Schappeller's electret or what he calls his "sublimate", requires a special plant and involves a continuous process of perhaps six weeks' duration. Suffice it to say that the principle in the design of this new plant is "transpiration" or drawing energy from the ground by producing a stressfield above the ground and then binding it as an energy sublimate to a suitable "electret material" to form the permanent magnet for our new form of field.

This plant, although worked out in detail, is entirely new and has no parallel in present Science; it is as important in the New technique as the cyclotron, or equivalent apparatus is in the attempt to obtain atomic force by the "splitting up" instead of the building up, of the atom from atomic potential in the free, unbound state, but with this difference, that once it has performed its part of producing the sublimate, it will never be required again, because the products can then be reproduced anywhere and everywhere as desired.

Magnetism ~

We have already dealt with the origin of magnetism in the latent form, then polarized as vacuum or atomic force in the cosmos, and finally functioning as a sun or other variant.

We have also examined the method by which magnetism is produced and utilized in electric generators of the present day, that is the solenoid and its core; the core is then said to be polarized, and each unit of such an apparatus is termed an electromagnet. If we place a small piece of steel in the neighborhood of the poles of such a magnet, when the solenoid is carrying the current, the steel will be attracted because the field around the end of the pole will be induced into the cohesive force of the steel and it will finally be held against the face of the core or magnet.

Or we may consider a bar magnet which has only residual magnetism, the shape of the field being so well known that it need not be shown here. The bar is then said to be magnetized; the magnetism in the bar is polarized magnetism, the one pole, as we have seen previously, is hydrogen and the other oxygen energy; the neutral center is carbon energy, and the polarizer is carbon energy in the steel.

Now there is a law in this kind of magnetism that *"magnetic lines of force are always closed"*.

This means that each line of force has N and S, or H and O energy, and that the pull exerted is through a form of restricted mobile interchange; in other words, the field itself as such is neutral. But place a piece of steel in the field and the magnetism or static (mobile) interchange will cease and the N and S, or H and O energy, the two components of all magnetism, will once again be separated out as a polarization.

The shape of the field shows that due to compression in the metal it exerts a pressure outwards and also an attraction or pressure inwards, but only as a static field, not in the free form with true mobility.

Suppose we could bring this magnetic field to the "glowing state"; we should then have mobility, breathing, transpiration, the Primary Force. But this is not possible. We require for this an entirely new form, and an entirely new condition of magnetism, and obviously therefore a new form of magnet.

It will be clear at once that steel will not fulfill the required conditions for our new magnet.

We can even venture on a further assertion and say that no substance exists which will satisfy the required conditions for the new form of magnet or magnetic field which is an essential of the New Technique, the purpose of which is to produce the Primary Force.

Now there is polar and impolar magnetism, and we appear to require a modification, or perhaps more accurately expressed, a combination of the two.

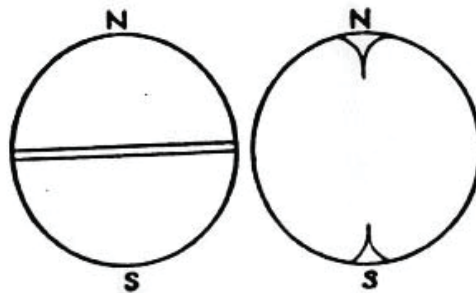
The three essentials to any magnet are two poles and a neutral. We require a uniform, coherent and concentrated magnetism and we refer now to the magnetism itself and not to the field producing it. This is the reason that no substance of any form could fulfill these conditions, which means that our magnet must therefore be throughout of magnetism; the two poles and the neutral must be centralized, united, in the form of the basic sign of all life force, the "trinity in unity".

But to accomplish this artificially, that is, through apparatus, the form of apparatus must be polar and *the electric current must be polarized*. The electric current is self-produced in the Stator without the aid of any external generator, and is only required at all for stimulating a specially designed Rotor, not for driving it, and even then only when the Stator is required for the purpose of generating mechanical power in combination with the Rotor.

The figures show the new form of magnetic field.

Figure 12: External View of Stator

Figure 13: Internal Section of Stator



Both are, of course, purely diagrammatic and only show the principle. Drawings are available at the end of this Part II, i.e.:

- (1) A Schematic diagram showing the complete circuit.
- (2) A Scale sectional drawing through the whole Stator
- (3) A Force diagram.

There is no such thing as magnetism without the characteristic N, S and neutral, and here they meet... the trinity in unity

So the Stator is a sphere formed in two parts -- a top and bottom half or a north and south pole, both of which project into the interior of a free, hollow, central space; the diagrams represent the central hollow space of the Stator only, and not the outer covering.

The whole of the space in [Figure 13](#) is filled with glowing magnetism when the Stator is in operation -- the glowing magnetism being simply the induced, highly compressed energy-material, exactly as is the case with a sun or other newly formed variant.

We know from the PP that the origin of all heavenly bodies must be the Ether, being the one and only material available out of which cosmic bodies can be formed. The ether does not form a cosmic body; the cosmic body is formed out of the ether, technically perhaps a distinction without a difference, but basically one of great importance, because we are dealing here not with

the dead or rather devitalized force of the electric current, but with the great biomagnetic static Primary Force.

It is the conscious sense energy in the Ether which causes cosmic bodies to form and gives each of them their characteristic destiny to perform.

It was explained in the earlier part of this book that the Ether is latent conscious energy; the core of a sun which is out of the Ether (being merely polarized highly compressed hydrogen component, but complete with its complementary oxygen stressfield) must also be "conscious" -- i.e., a living entity but not yet organic.

There is only one ether material; it must therefore be the same ether which is finally formed to the glowing state as glowing magnetism; only the method by which this is brought about artificially differs.

The northern half of the spherical glowing magnetism is stimulated as one pole and the southern half likewise as the other pole, therefore the diametric central surface is neutral. This trinity in unity can only exist in the pure energy state.

Three candle flames can be merged into one, but the products of combustion would be externally ejected; only their energies remain within, separate, yet united. It may be said that ten candle flames can thus be merged into one, so why call it a "trinity"?

Exactly so, but this is merely an additive process, not a basic law; the separate candle flames are in no way essential components of the whole. A single candle flame was just as complete, singly. Whereas the N and S poles and the neutral constitute the three basic components of magnetism, without which no polarized magnetism can exist.

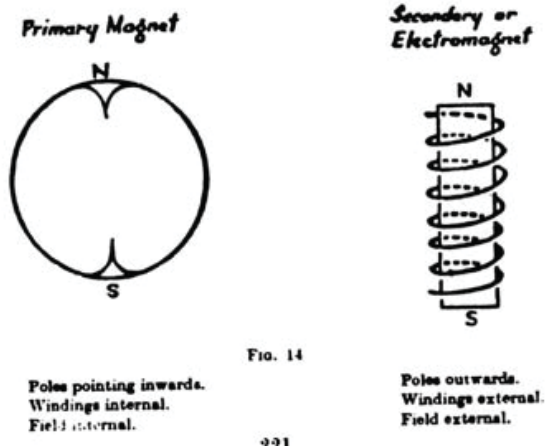
It may be asked, then, where is the neutral in the latent magnetism of the ether? It has, however, previously been explained that the N and S poles are the H and O components and that the neutral is the carbon before polarization and this is the unity in the trinity.

Exactly the same exists here from this artificial polarization, the carbon neutral being, however, merely in this case a Euclidian diametric surface as homogeneity exists throughout.

It is obvious that innumerable questions arise, which require an answer, but let us clear them up one by one without haste and thus without confusion.

The study of "origin" requires not only immense patience and a restful mind cleared of prejudice, but also great tolerance, before it can be intelligently assimilated!

Figure 14:



Primary Magnet (Poles pointing inwards. Windings internal. Field internal)
Secondary or Electromagnet (Poles outward. Windings external. Field external)

The bare statement has been made that the glowing magnetism forms in the central hollow space of the Stator, which merely explains what this central space is for, and that in being the seat of the glowing magnetism it is the purpose for which the whole Stator is designed.

The purpose for which a gun is designed, complex mechanism as it is, is nevertheless merely to fire a shell; and the purpose for which this new apparatus, the Stator, is designed is solely for the production and maintenance of a glowing magnetic core, which we now see is formed and maintained in this central hollow space.

The questions arise, how and when is the glowing magnetism formed and maintained? We now know where this takes place.

As we already know, the first essential to its formation is *to produce a point of inequality in the homogenous ether, in the geometric center of the hollow space, in order that a physical center may be formed.*

But we have not the facilities of the Cosmos, and so we can only accomplish this by setting up a magnetic field which will concentrate a pressure on the center of the hollow space; but this must not, as we have seen, be a gauss field.

The coils instead of being wires must be tubes, or if we prefer the term, tubular wires, as they are of very small diameter -- perhaps of the order of $\frac{1}{4}$ inch.

Of what substance should these coils of tubular wire or tubes be made?

In this form of electromagnetism it may be said that a conductor is an insulator and that a dielectric field holds a charge, and in one sense for static electricity it is thus, as it were, a static conductor. So our wires or tubes would be made of copper...

The drawings for the Rotor have also been worked out and the author is able to state that no further mechanical or electrical difficulty presented itself in the design of either of these two entirely separate units, which together constitute the complete Prime Mover for the production of mechanical power in the New Technique. Furthermore, the Stator, when suitably designed, can be used for the production of light and heat, of course without a Rotor (which later would obviously only be required when the purpose was the production of power), and likewise for many other purposes including radiology in the treatment of diseases, etc., etc.

But hollow copper wires or tubes alone will not enable a suitable magnetic field to be produced. The purpose of hollow tubes is to fill them with a suitably chosen and suitably prepared combination of substances, the actual composition and preparation of which is Schappeller's secret. It is the equivalent of Eguchi's Electret, but whereas Eguchi's Electret was in the nature merely of an experiment in Physics to establish a phenomenon or "effect", Schappeller's sublimite is the outcome of experiment guided by immense original research relevant to the various specific purposes for which this sublimite is to be produced.

The new plant for the production of his sublimite is entirely of his own design, based on a deep knowledge of the application of the laws of the Primary Physics, but presents no constructive or mechanical difficulties, and brings the production of the sublimite to a fine art. The general principles of the design of this plant and apparatus are known to the author, but it would not be legitimate for him to reveal them here, and it is furthermore unnecessary at this juncture.

That a sublimite can be produced is a proven fact from the Eguchi experiments.

Quality of Energy

Now before we leave the subject of the sublimite an important question arises: why will not any sublimite serve the purpose? This, in the New Technique opens up a large new field as yet entirely hidden from Science -- "quality of energy".

Some scientists are trying to being to think in terms of quality of energy, but for them at present no such thing as quality of energy exists.

As was pointed out in an earlier Chapter, the transformation of the sun's electromagnetic radiation into light and heat on this earth does not mean that light and heat are different qualities of energy. How could they be, since they are from the same source. They are merely different conditions of electromagnetic radiation, the quality of which was characterized by the sun.

We can have different qualities of coal gas, because it is merely a mechanical mixture suitable adjusted for various purposes -- light or heat; but there is no such thing as different qualities of steam -- saturated and superheated steam are different conditions, not different qualities, as both owe their origin to water.

In the case of the electric current or a magnetic field derived from it there is neither a change in quality nor of condition, only of form, e.g., DC or AC current and various forms of fields.

To produce magnetic fields of different qualities we require a sublimate and the quality is, therefore, characterized by its specific composition; herein lies the immense importance of the sublimate, and that is why Schappeller has reduced this portion of the work to a highly developed art. In view of the evidence given of the Electret, there appears to be little reason to doubt that he can produce this in special forms to suit the innumerable conditions demanded in the application of his New Technique.

The quality of energy required for mechanical power is obviously different from that required for specific purposes in radiology, although the radiation even from a power Stator would be generally beneficial to the human body, as both the Stator's energy and that of the human body are biomagnetic.

We are, however, at present simply concerned with the design of a Stator for the production of mechanical power. We will now assume that the correct composition of sublimate has been prepared; it is then forced into the two coils of tubing (that is, the tubing which is to constitute the N and S poles, or two halves of the Sphere or Stator) until the tubes are completely filled throughout.

These tubes are now embedded in a suitable material of ceramic composition which, when it cools and solidifies, holds the two coils firmly in position. This ceramic material performs various functions; it holds the tubes in position, protects them, refines the ether radiation or induction into the center, and its inner periphery or surface presents a heat-resisting face to the glowing magnetism. It is also electrically an insulator.

The Charging of the Sublimate

The sublimate must be charged with electric current, after which, provided no power is taken from it, it will retain its charge as we saw in the case of the Electret; the Sublimate in this case is an energy sublimate (produced by the new plant referred to above), but this sublimate is bound to a composition of substances in the solid form with which the tubular coils are tightly filled.

The charging plant required is merely that necessary to give the required number of amperes, the plant being composed of the requisite generators and units, according to whether the grid current is available or an entirely different supply is required, or both as a "standby". Such plants will, of course, supply direct current.

The Stator

A ceramic lining or casing is fixed on the inside of a steel casing, the whole being on two journals supported on trunnions.

A lever with handle is connected to one side of the trunnion outside the journal, by means of which the Stator's sphere can be tilted from the position of N-S vertical to the limiting angle required for the directional magnetic concentration of the Rotor, as we shall see later

The Circuit

Starting from the top half of the Stator, the coil of tube containing the sublimate is fixed to the North Pole, finally emerging through the hollow axle on which the Sphere of the Stator is supported, the bottom half of the Sphere being similarly provided with a coil of tube attached to the South pole and emerging on the other side through the hollow axle.

Wires (ordinary copper conducting wires) are connected to the two ends of the nests of tubes, after which they emerge through the hollow axle and are brought down to two terminals conveniently situated. These wires complete the circuit through the Rotor, which is mechanically an entirely separate unit, standing on its own base and at a specific calculated distance from the Stator; the Rotor is fixed to the shaft to be driven.

The central terminal is for the "earthing connection" through a battery (needless to say, of special design and having no relation to any form of battery at present known to the SP [Secondary Physics]), and the Sphere is earthed through the battery -- the whole of this connection from the center terminal to the "earthing disc" itself being a tube filled with sublimate exactly similar to the tubes forming the Stator field.

The disc or earthing plate is also of special design, according to the purpose to be served.

The battery is not essential where the Stator is merely for the production of power, as it is really a refining apparatus -- that is, for refining or qualifying the energy for each specific purpose to be served.

A study of the **Schematic Diagram** and **Scale Drawing** of the Stator should now make this clear.

The Rotor

This is really a steel wheel of special design fixed actually on the shaft to be driven...

[The construction of the Rotor] consists of a steel wheel of special design with short spokes, and, finally, a periphery or rim in which there are magnets -- always an odd number, five or seven and so forth, to avoid the possibility of a dead center.

This has been worked out in detail just like the Stator, but the author regrets that he has no drawing of the Rotor available at present.

The body, spokes and part of the periphery, including of course the magnets, which later are also hollow, are entirely filled with sublimate and energized through the electric current, as shown in the **Schematic Diagram**. The moment the Stator is switched on.

Switching On

What actually does "switching on" mean?

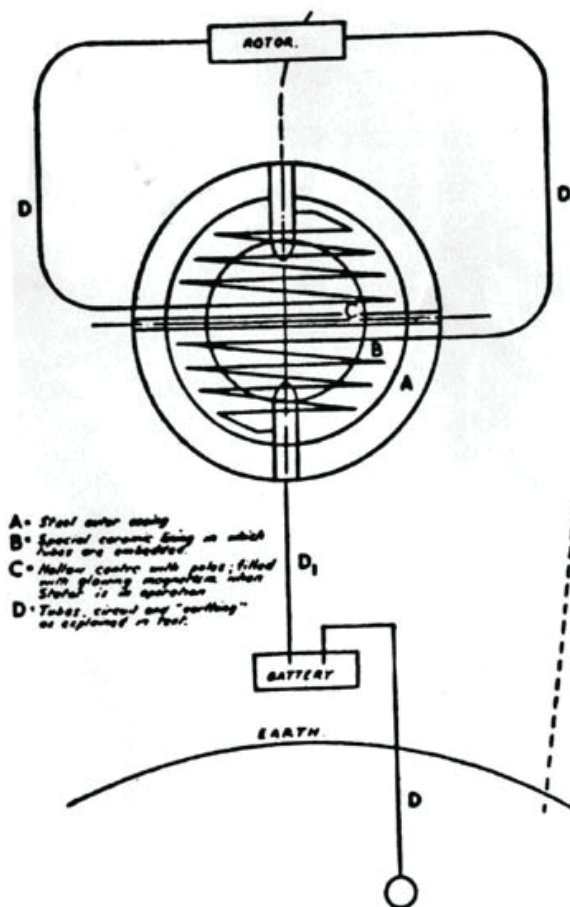
It means "earthing" the Stator. In the "off" position the earthing connection D_1 is broken, the Stator or Sphere of the Stator being exactly in the N-S vertical. So switching on means pulling the lever provided on the Stator spindle and thereby taking the Sphere of the Stator off the neutral stud; the Sphere is then earthed through the connections shown and aired through the N pole at the top, which may even accumulate outside the Sphere in a cross filled with electret or sublimate material, or in a Sphere, in place of an ordinary screwed plug (See drawing of Stator).

The complete theoretical energy cycle is shown in the **Schematic Diagram**. The dotted line represents the return to the earth, really a theoretical consideration.

The position of the Rotor relatively to the Stator is the position of the reader when studying the drawing. If the reader pulled the lever towards him the N pole would finally point exactly to his eyes. Imagine that his eyes are a magnet just appearing over the top of the Rotor periphery. The Stator in this position will be exerting its maximum force on the Rotor, because half the core is concentrated on the Rotor.

The Rotor will be set with its axis, that is, the axis of the shaft to be driven, parallel to the axis of the Stator shaft through the trunnion, and at any convenient distance within the Stator's amplitude' Schappeller declares that a suitable distance between the shaft of the Stator and that of the Rotor is seven times the outside diameter of the Stator (7d).

THE NEW TECHNIQUE
SCHAPPELLER PRIME MOVER
SCHEMATIC DIAGRAM



- A. Steel outer casing
- B. Special ceramic lining in which tubes are embedded.
- C. Hollow centre with poles; filled with glowing magnetron when started - is a spark-gap
- D. Tubes, circuit and "wiring" as explained in text.

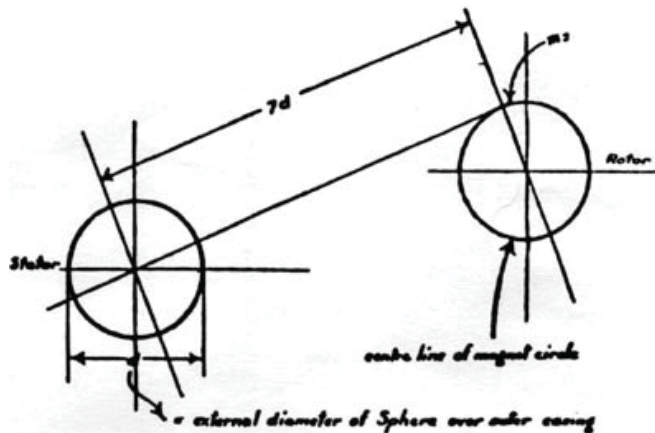


FIG. 15

Force Exerted by Stator on Rotor

Referring now to the **Force Diagram**, the dot and dash line XX represents the center line (in a horizontal plane) of the Sphere of the Stator through the journals and trunnion. The line (dot and dash) YY is the center line through the Stator Sphere and the center line of the peripheral circle of magnets, tangential to the radius of the Rotor at this circle.

The distance between center of Sphere and center of magnet appearing on periphery will bear a definite proportion to the angle at which the lever is placed with relationship to the YY axis.

Line A_2B_2 represents pull for lever at 10 degrees

Line A_1B_1 represents pull for lever at 30 degrees

Line AB represents pull for lever for maximum position

The above, of course, are the rectangular projections of the N pole, or a graphic representation of the useful component of force directionally available for exerting a pull on the Rotor.

The Z line is the position of the lever for maximum force.

The Rotor for the first demonstration has been designed for 15 HP only, but with the present Stator dimensions, so that enormous surplus power is available.

There will be a demagnetizing or "braking" effect on that portion of the pole not in mobile exchange with the Rotor, which at AB max. will be zero, at A_1B_1 (corresponding to a lever position in the diagram of 30 degrees) is represented by the smaller area and sloping section lines, and at A_2B_2 (for lever at 10 degrees) is represented by the larger area shown by vertical section lines. The value of these two braking effects is represented by the projection of B_1A_1 and B_2A_2 respectively, to the limiting lines A_0 .

This theoretical diagram would be modified when set out for any actual Prime Mover:

- (a) by the relative positions of the Stator and Rotor;
- (b) by the diameter of the Rotor magnet, represented here as a point.

Let us now obtain through calculation some impression of the maximum directional force exerted by the Stator. We must remember that this is not "steel magnetism", but magnetism from a glowing core in the primary state, for which the laws of magnetism will be modified.

Coulomb's law $F = k (m_1 m_2 / r^2)$ is not a convenient form to make the first calculation; we will therefore use the form $F = B^2 A / 8 \pi$.

Now, if we are, with this form of primary magnetism, within the amplitude at 7d, it is legitimate to make a preliminary calculation based on this formula, if only to demonstrate the principle on which the force is exerted.

Remember, in this connection, that here it is the electricity that is stationary and magnetism that is radiated, as we shall see shortly when we examine the functioning of the whole Stator and Rotor.

The next consideration is the introduction of the Schappeller constant.

He derives this on the principle that water is to air as 1000:1 (as weight or density), and that air is to atmosphere (as stressfield) as at least the same, 1000:1. Therefore the expansive power of the ether is at least 1000 times that of air and likewise of a present gauss field, whose expansive power as a field is negligible, relatively. In other words, the capacity of the ether for stimulation as a stressfield, for all practical purposes, is infinite, and the force inducing ether stimulation has its seat or origin in the magnetic-heat potential, e.g., the sun's magnetic-heat potential and its infinite stressfield.

So Schappeller takes as his constant that this primary magnetism is 1000 times more powerful than a magnetic field of present magnetism -- a gauss field -- which, when the full significance of a primary stressfield and its origin-force has been assimilated, may be regarded as quite a moderate figure.

It may be said that the field from the earth's core, which is, of course, also glowing magnetism, is only 981 -- yes, but if we take the present estimate of the core at 2000 miles radius, this flux of 981 is for a distance of 2000 miles.

Calculations on the Stator

Given a Stator Sphere of 15 cm diameter, what HP is available?

Take B for steel at a flux density of 15,000 gauss (Maxwells per cm²).
A = surface area of Sphere = say, 600 cm². Then:

$F = B^2 A / 8 \pi = 15000^2 \times 600 / 8 \pi = 225 \times 10^6 \text{ dynes} \times 600 \text{ cm}^2 / 25 \times 981 \times 1000 = 5400 \text{ kilos}$ pull exerted just outside the surface of the Sphere.

But we must now introduce Schappeller's constant 1000. The author halves this again and calls it 500 -- a very low figure.

Therefore, Pull = 2,700,000 kilos, but only half of the Sphere is directly or directionally active. Therefore, Pull = 1,300,000 kilos, says, 50% efficiency between field of Stator and field of Rotor -- loss due to slip, not heat (See Chap. XXIV, p. 172, para. 2). Thus, Pull = 675,000 kilos

Take this as operating at 1 meter/second, and we have $67500 / 75 = 9000 \text{ HP}$, which is the same figure as that which we obtained from the Mathias value of lightning-material (See Chapter on Lightning).

Now, Physics tells us that the earth's field varies as the square of the distance from the center of the earth, but that the earth's core probably has a radius of 2000 miles. Therefore the crust is 2000 miles thick.

The PP establishes the earth's core as glowing magnetism; therefore this 981 is at 2000 miles.

But 77 miles is about the 26th part of 2000 miles, and the square of 26 is approximately:

$680 \times 981 = 675,000 \text{ approx.}$

Therefore, on this calculation the earth's field would have an equivalent or exert an equivalent pull to that exerted by our Stator at 77 miles from its core periphery.

If we make the calculation from the geometric center of the earth on a radius of 4000 miles, instead of 77 miles we should have, say, 150 as the equivalent distance for the earth's core to exert 675,000 dynes per square cm., which, as the core itself is 2000 miles radius, is *reductio ad absurdum*. This shows that we are well within the estimate for the force exerted by primary magnetism from a glowing core.

The earth's field is, of course, vastly greater than that of our Stator, so much greater that on this calculation it has a magnetic field at 77 miles from its core periphery equivalent to the field produced by our little Sphere at a distance of, say, one meter from the Stator core.

The actual pull exerted on a magnet on the Rotor periphery depends on the intensity of stimulation given to the Rotor magnets, and may, for the examination of the principles, be represented by

$$F = k (m_1 m_2 / r^2)$$

Where m_1 is the Stator field and m_2 the field of any given Rotor magnet.

As regards the actual power transferred to the Rotor, we have three adjustments available:

(1) The strength of the Stator field, which must have a minimum strength sufficient to bring the Ether concentration to the glowing state.

(2) The resulting pull exerted on the Rotor, according to the position of the lever as shown in the Force Diagram.

(3) The stimulation given to the Rotor magnets through the electric current generated in the Stator. This will be direct current, the strength of which can, of course, be entirely controlled through the present known means.

It will be obvious that more data is required to make the actual calculation, e.g., a "constant of stimulation" will have to be introduced depending on the composition of the secret sublimates, and there are other considerations.

But let us now again make a calculation of the available HP from the Stator, but on quite a different basis. We mentioned in one of the earlier chapters that this might bear some relationship to Electrochemical Equivalents.

Now with electrolytic action:

1 amp deposits 0.329 mgm of copper per second

3 amps deposit 1.00 mg copper/sec.

Now each 8.9 gm copper occupies 1 cm³

But 1 liter -- 1 dm³ = 1000 cm³

There are thus, say, 9000 gm Cu in 1 liter. So in a 1 liter Stator we have 9000 gm Cu or $3 \times 1000 \times 9000 = 27 \times 10^6$ amps.

Assume 1 volt and $27 \times 10^6 / 746 = 36000$ HP

But maximum available at 50% for half the Sphere is 9000 HP, as was obtained in the last case by the Mathias figure (See Chapter on Lightning). This must be regarded as taking place within a second, because the deposition figure is per second per ampere; this energy is, however, instantly available.

It should nevertheless be realized that this is an energy-capacity measurement, whereas the resulting stressfield is per unit surface, a surface measurement. The capacity measurement is "indication" and thus we cannot multiply by the Schappeller factor here.

Now, it may be said that 1 volt would not bring the Ether to a glowing state, which is perfectly true, although this will be made clearer shortly.

In the energy form or state we may assume a high "transference or conversion efficiency". The commercial efficiency is, of course, about 100%, because the fuel costs nothing and is inexhaustible.

The earth, as has been previously explained, is the storehouse of energy, which energy is available to replenish continuously the Stator Field as and when the Rotor draws energy from the Stator through the medium of the energy cycle.

Electropy then ensues promoting continuous induction of the Ether towards the center, just as it takes place in the sun through the induction of its complementary stressfield; but here, through the pressure exerted on the hollow center of the Stator due to the intensity of the Electret or sublimate field.

It was explained in the Chapter on the Electric Current that amps are merely densified volts, and this must be so because an inspection of the basic formula or Ohm's law shows that power is obtainable from any given electric current in direct proportion to the product of volts and amps, volts representing the stress or energy potential, and amps per unit of time being the quantity -- the actual unit being the Coulomb.

The best illustration of this in the electrotechnique of the present day is perhaps the transformer, which actually converts volts into amps, or vice versa. It follows that what we are doing here is merely to convert volts into amps.

The volts in the sublimate through electrization constitute the static electric field, which field is constantly concentrating its energy onto the center point of the Sphere and densifying, or sublimating, because amps are really a sublimation out of an electric stressfield produced artificially by compression of the cohesive force in the space-form of a wire.

In the present electrotechnique volts are densified to amps through compression in a wire, the denser amps requiring a larger section for their accommodation, that is, the sublimate, being energy-material, requires more space than the stressfield from which it originated, hence the larger section required in the secondary winding of a transformer in "stepping down".

In the New Technique all this takes place in the free state, through compression on a center, till densification and ignition and we then really have amps as the glowing core surrounded by its complementary volt-stressfield which together, in this form, constitute the true atomic or Vacuum Force.

But we saw in our previous calculations that the Stator had a calculated capacity of 36,000 HP or an effective maximum capacity of 9000 HP.

Let us now work backwards; assuming that the full capacity of the Sphere is used, which it never would be, because of engineering considerations, the Stator must be capable of 36,000 HP continuously.

The primary static charge on the field must be only of such capacity that it will occasion induction of the Ether and in the initial stage cause implosion, and afterward sustain this densified Ether in the glowing state to the capacity of the load when connected between the PD earth-atmospheric stressfield.

But if the Stator is to be loaded to its full capacity, which we have seen is calculated for practical purposes as 9000 HP (effective), then 36000 HP of energy must be drawn from the earth.

Now let X = the amps charge required by the field; then

$$500 \times X \times 100 / 746 \times 9000 = 135 \text{ amps at 100 volts,}$$

or let us say 13,500 watts, which is converted into glowing energy 500 times as powerful (taking a value of half of Schappeller's constant).

This really signifies that the Stator field must be able to hold and transfer 13,500 watts per minute, which, as has been explained, is actually supplied or drawn up from the earth through the earthing connection shown in the drawing and diagram. The voltage required for the charge is only that necessary to impress the charge into the sublimate.

After electrolysis has taken place there are, speaking the language of the present electrotechnique, no volts in the actual core, as they are densified to amps. Hence we say 1 volt for purposes of calculation.

Thus the capacity of the field in any given design depends on:

- (1) The rate at which power is to be drawn;
- (2) The total effective area of the nest of tubes, which may have three or four rows, arranged concentrically as one continuous field.

The designs and drawings which have already been prepared are actually for a 15 HP Prime Mover, the Stator being of the dimensions given in the calculation. So that instead of supplying 9000 HP it has in the first demonstration only to supply 15 HP.

The above calculations are thus only intended to show the function which this type of field has to perform.

The 15 cm Stator is about the smallest that is mechanically practical to produce.

Here, it should perhaps be made clear that the cost of a complete Prime Mover (Stator and Rotor) is negligible. The main cost of demonstrating the application to mechanical power lies in the purchase of the charging plants and standby sets, which later are absolutely necessary for certain reasons, and also Schappeller's special plant for the production of the initial sublimate by occasioning transpiration, followed by condensation and sublimation, all in the energy form.

Let it therefore be clearly understood that any suggestion of small laboratory models or the like is out of the question or they would obviously have been used and the application of the Primary Force to mechanical power would long since have been tested out. The transpiration could not be produced by models and the essential sublimate could not therefore be produced except by a plant of certain minimum dimensions capable of producing transpiration, and this also applies to the Stator and Rotor which is obvious here when the design of the Stator is carefully examined.

The Functioning of the New Prime Mover

From a careful study of the Force Diagram it may be said that a very small initial movement of the lever represents an inconceivably large "available force", but the diagram also shows, in relation to this, that the "braking effect" at small angles of movement of the lever is much greater than at larger angles, as shown by the cross-hatched and hatched areas; and if the two units (Stator and Rotor) of the Prime Mover are carefully designed, and set for the average and maximum loads required in each case where such Prime Movers are to be installed, the "graduation curve of force" relative to lever angles can be favorable, within the ranges of power required in each particular case.

It will thus be seen that there is a characteristic curve for this, just as there is for every motor or generator in the present electrotechnique; or it is perhaps the equivalent of the Zeuner diagrams for reciprocating steam engines.

For the moment, however, we are not concerned here so much with the design as with the actual functioning of the Prime Mover.

We have seen that whichever way we make our preliminary calculations for estimating the power available, the power exerted on the Rotor is in the form of a pull as between the poles of two magnets. It is, however, from the mechanical engineer's standpoint, somewhat doubtful whether this force exerted as described here would prove to be an entirely satisfactory method of producing mechanical power, but happily this point is of little or no importance, as it is not the way in which the rotary motion is produced. The pull exerted on the Rotor magnets gives the Rotor periphery its directional motion, but the motion is afterwards sustained or maintained by the crossing of two stressfields, i.e., the Stator stressfield crossing the stressfield of the Rotor -- the means by which the earth gives the sun its rotation on its axis. In other words, it sets up a condition of dynamic balance, or an equilibrium which can only be satisfied by producing the requisite motion.

The sun is a product of the earth's stressfield and is thus biomagnetically characterized by it and to it.

Likewise, in the case of the Stator and Rotor, the Rotor being energized entirely -- both qualitatively and quantitatively -- by the Stator, rotary motion is imparted and maintained in the Rotor provided always that directional pull has been given, and here it is also sustained, i.e., the direct pull on the magnet.

In the case of the earth and sun we have motion imparted and sustained in the latter's core of glowing magnetism, which is crossed -- and thus energized and characterized -- by the earth's stressfield, whereas with the Stator and the Rotor we have artificially not exactly a similar, but an equivalent condition, viz., we have set up in a Rotor an energized field stimulated and characterized for a given Stator, but here, since the Rotor field is in the cold condition and the Stator field, although exactly similar in quality, is in the glowing or hot condition (energy form), a magnetic-heat potential exists between the two units of the Prime Mover.

This is a striking example of the Schappeller discovery shown graphically in the first of his symbols in Chapter VII, viz., magnetism and heat as one, which does not exist in the present Physics, that is, magnetism with heat-potential, the source of the greatest force which exists in Nature.

Figure 16:

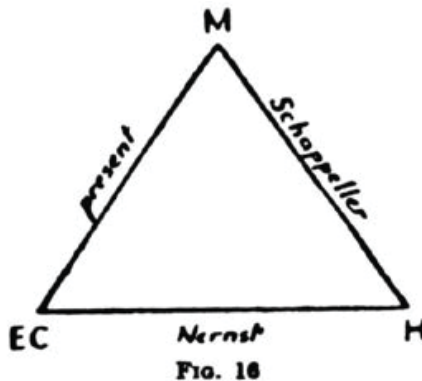


Figure 16

It is for this reason that the whole body of the Rotor with its spokes, in addition to the actual magnets, is filled with sublimate and energized through an electric current generated directly in the Stator itself. Directional pull is then given directly on the peripheral magnets and the whole energized Rotor is then cutting lines of force at a speed determined by the magnetic-heat potential and the load, adjustable as follows:

- (1) By the strength of the current supplied to the Rotor sublimate being variable as in the present electrotechnique.
- (2) By the Stator field heat-potential which, according to Schappeller, may be of the order of 50-300° C, whereas the Ether or cold latent magnetism will always be constant, probably as low as -270° (more or less) even near the earth' surface. The intensity of the field and heat-potential will vary with the initial charge given to the sublimate.
- (3) By moving the Stator lever and thus altering the angle of the N-S poles in the Stator Sphere with relation to the rotary periphery.

(4) By adjusting the relative positions of the Stator and Rotor. Stator N-S line need not be vertical when on the neutral position.

The Rotor is laminated to prevent eddying and the magnets do not project; the Rotor periphery is thus entirely equiradial. The Rotor is fixed to the shaft to be driven and the Stator is fixed about a meter above the earth's surface. This latter is, of course, flexible because the earth can include the sea or even the floor of an ether-ship.

From one standpoint the Stator may be regarded as a body in Space. The concentration of the ether or latent magnetism takes place over the entire surface of the Sphere, in the same way as in the case of the Earth itself. It represents as it were a "power-field" concentrating on the central point of the Sphere. But actual concentration will take place only if and when a potential difference exists between the density in the latent magnetism outside and inside the Sphere cavity, which again will depend on the existence of a heat potential.

When the Sphere cavity is full of air the ether density will be balanced, and this is, of course, the position when the lever is first pushed off the stop or neutral position.

A power field therefore exists outside the cavity (or hollow center of the Stator Sphere) which is ever ready to concentrate with tremendous energy or atomic pressure at the center point of the cavity the moment a heat-potential exists or is produced.

Now the instant the lever is pushed off the neutral point the Stator Sphere is polarized, or possesses an N and S pole although the N and S line may only be a few degrees out of the vertical neutral position. The Force Diagrams set out for the vertical at the "neutral position" but it need not be.

The field is energized the moment the Stator is switched on. The ether balance inside and outside is no longer stable; pressure due to the field is exerted on the center of the cavity, and stream of cold latent magnetism (or ether) flows from the N to the S pole, the only pathway at present available as the air is still in the cavity.

An ever-increasing pressure from the field concentrates on the center and the air (which is merely a sublimate out of the ether) is disintegrated; that is, the nitrogen and residue (the noble gases) are reconverted into the energy form as hydrogen, and the oxygen to oxygen energy; in other words, the whole is reconverted into ether and concentrated.

The now powerful concentration of the field on the center of the cavity, after removing the air, induces an inrush of ether through the entire surface of the Sphere, resulting in a tremendous concentration of ether in the cavity. The pressure increases until finally the whole ether mass reaches a density corresponding to a critical temperature above which this densified ether enters into the glowing state and a powerful heat-potential is established.

But it will be clearly understood by now that this is not merely heat-potential such as operates a thermodynamic cycle, but a magnetic heat-potential due to magnetism as densified in the glowing state.

In the Chapter on the Electric Current the formula $\text{Current} = \text{gauss}/0$ was given as being the equivalent of Ohm's law for the production of electromagnetism by the new Primary Technique, and the significance of the factors in this formula can now be understood.

$C = \text{gauss (vacuum)}/0$

C = current, but current as such does not exist in the Primary technique because, as we know, here the electricity is static and the magnetism moves -- hence the term *dynamagnetism*.

C in the Primary Technique thus signifies not current as such, but its static potential, viz. densified volts or amps.

As has been explained, the BEMF is lifted and becomes the surrounding stress designated in the formula as the field under the term gauss. Here, however, this does not mean merely the field produced by the sublimite as such, but rather the complementary other half of the glowing magnetic core or ether concentration as volts. The two, i.e., glowing core (amps) and complementary stressfield (volts) constitute (as in the case of the sun and its complementary stressfield) a primary vacuum -- hence the word vacuum in brackets next to gauss.

Now this concentration of the stressfield is virtually on one point, which produces and sustains a physical center.

The Euclidian definition of a point is that it has no magnitude, so mathematically its dimensions are zero or 0, and C is therefore (theoretically) infinity.

The reason that it is not actually infinity is because of the limitations of "form" due to the construction of the apparatus. The sun's resultant magnetic field is so vast that it may be termed for all practical purposes infinite in extent.

We have thus constructed artificially an apparatus which will set up the conditions in which Primary vacuum will form and be maintained, or, speaking technically, an artificial sun and its surrounding stressfield. This is the biomagnetic static force, the atomic force, for which scientists are researching, but in its free original state as a potential difference by the building up of the atom, instead of endeavoring to obtain this force in its secondary form, where it appears as Cohesive Force in material, and then attempting to split it up, when it is neither collectible nor biomagnetic but devitalized.

It should be clearly understood that it is impossible for any apparatus to produce glowing magnetism, just as it is impossible for any kettle or boiler to produce steam; such apparatus can only be constructed to bring about the conditions in which these phenomena will obtain. In purely colloquial language it is, of course, exactly the same thing, but speaking strictly scientifically it is very important to keep this clearly in our minds.

But to continue with the Technique. This glowing magnetism in the central cavity has not merely enormous suction force, in that the surrounding ether concentration is induced into it through and by the powerful field concentration on the center point, but it acts as a catalyst, that is, it

catalyzes the carbon energy static (the Ether) and compresses it; the reaction must therefore be the opposite -- expansion -- and it is thus radiating it out as a stimulated (instead of latent) H and Of power field, or true bioelectromagnetic radiation or stress.

It draws between the potential difference earth-atmosphere (as a stressfield) -- this is the PD -- but the reservoir of energy from which it draws is the biomagnetic saturation of the earth (H and O energy) which the earth derives from its central core, hence the imaginary dotted line in the **Schematic Diagram** showing the return of the fundamental energy cycle to the earth's central core, in principle.

The actual suction exerted is to supply the energy taken from the Sphere by whatever load is being carried (the load need not necessarily be mechanical power -- it may be reproduction of primary light or heat, curative radiation, or the production of one of the essential elements, or for various other purposes) is drawn up through the earthing tube as dynamagnetism, and this energy travels up this tube into the Stator field on the "energized sublimate" and is then projected out of the spherical field by Electropy, due to the central pull exerted on the spherical field by the physical center or core caused by the load.

The suction exerted by the glowing magnetism through the field could only draw energy up on energy, that is, on an energized sublimate, and then only if the Stator constitutes a physical link between the magnetic potential difference occasioned by magnetism bound (as in the earth's crust) and in the free state as ether or the surrounding earth's atmosphere -- thus operating the Primary Cycle.

Bu this action, followed by the reverse, this "energy-breathing" or transpiration occasioned by mobility (as we saw in the case of the sun) does not happen simply because it does.

It is ordered, disciplined, and in fact occasioned by entropy.

In that instant when the concentration of magnetism is brought to the glowing state the energy spiral or entropy spiral starts functioning up and down the Stator windings, and, of course, always in one sense and with a high frequency which Schappeller declares is probably of the order of 10^4 cycles per second.

This entropy spiral is always present in that instant when mobility obtains sue to a glowing core functioning in a fundamental PD -- and here we have produced these essential conditions artificially through apparatus, the classic example previously given being the sun or any cosmic variant.

It may be said that frequencies in the radio technique of today are far higher, but the work performed in one cycle is very much less. In the Primary Technique the concentrated stressfield is drawn in, catalyzed, and forced out in one cycle as a stressfield.

This stressfield, or radiating magnetic stressfield, is available as an attractive or repulsive force for the production of mechanical power if a complementary unit of the Stator, that is, a suitably designed Rotor or mechanical appliance (to be driven) itself contains a like substance, upon

which magnetism produced in this atomic state, or energy form, can react -- the whole, that is the two separate and complementary units, viz., Stator and Rotor, constituting a single Prime Mover, as has already been explained.

The Force Exerted on the Stator

Let us now consider what reaction must be supported or sustained by the Stator where mechanical power is being produced in its complementary unit, the Rotor.

The figure for directional pull, according to our calculations, was 675,000 kilos -- the maximum effective power obtainable from a Prime Mover of this size, but which would never be used in practice.

Obviously, as can be seen from the drawing, the Stator would be bolted down and presumably these bolts would have to take the reaction arising from the attraction exerted on the peripheral Rotor magnets of 675,000 kilos. But mysterious as it may sound, the casting and bolts of the Stator would experience no reaction whatever although the same law holds here, viz., that wherever there is an action there must be an equal and opposite reaction. In this case, however, the action arises not between magnetism bound to two opposing pieces of steel, in which the two pieces of steel will experience the action and reaction, that is, for example, the Stator of an induction motor of the field magnets and yoke of a DC motor which take the torque reaction exerted on the Rotor, or armature, respectively.

Here the action arises from the force of attraction exerted by a free mass of glowing magnetic energy bound to no material whatever; the reaction therefore will be upon the glowing magnetic core as such, which in its turn will be taken by the complementary stressfield. In other words, the reaction of the pull exerted on the Rotor magnets will be taken on the ether concentration arising from the Stator core.

Now consider the reaction on the Rotor. Here, as regards this force, we have similar conditions to those in electric motors of the present day, because the energized sublimates on which the pull is exerted is within or embedded in the steel Rotor casting and the pull will thus be transferred to the casting and thence to the shaft to be driven, and of course will be proportional to the speed and load.

It is obvious that in every case the Stator would be firmly bolted down for stability, but not in order to take the reaction. The important engineering consideration here is that the casting would not have to be designed to take this stress.

Fatigue of Metal

The steel casting of the Stator would, however, experience fatigue with time, due to the primary flux and, allowing a suitable factor of safety, warship engines, for example, might be renewed say every eight to ten years -- not a serious consideration, since engines or propelling machinery would then consist merely of Stators and Rotors, and the Rotors would not experience anything like the same fatigue.

Furthermore, with the introduction of the Primary Force new forms of instruments would be available for every kind of measurement, including this form of "metal fatigue".

Temperature of the Stator

At first sight it might be thought that the production of an "artificial sun" or glowing magnetism core would involve with it the inevitable production of enormous temperatures, and although this has already been dealt with, a few words here in the Technique may not be out of place.

Temperature is a word that we are accustomed to use when we wish to express the intensity of heat, whereas a calorie is a unit expressing quantity of heat, rather perhaps the equivalent in electrotechnique of volts and amps. But heat expressing both the above measurements is a phenomenon which is associated with air. There is no air in the Stator. If the stem of a thermoelectric pyrometer were allowed to project into the Sphere cavity, the terrific compression and densification brought about when the Stator was switched on would cause it to disintegrate and disappear; no material of any kind could exist, as such, in a glowing core. So, the light-material produced in the Stator (as in the sun) is the product, not of temperature, but of compression through densification.

This glowing core is the densest material that can exist, for two definite reasons:

(a) because it is all energy-material and there are no interstices;

(b) because this primary magnetic material is not merely under exterior compression but is itself the cause of this compression, since every particle of this energy exerts attraction on every other particle and towards a common center.

In compressing or exerting compression upon itself it is "doing work" only upon itself; there is neither air nor a material (gaseous, liquid or solid) within the core which could absorb, transmit, reflect or convert this energy into heat.

But the periphery of the core contacts with the special inner lining -- a suitable ceramic -- of the Stator Sphere, and this peripheral or surface energy will be converted into heat, but on a relatively very moderate scale. Schappeller gives this figure at between 50-300° C., according to the density required, whereas the periphery of the steel Sphere casing would be much less than this (See Chapter XXIV, p. 172, para. 2).

The Arrangement of the Plant for Power Production

Let us first consider the problem as applied to marine propulsion. Given a single propeller shaft to transmit, say 8000 HP, we should not use one Sphere but perhaps eight, distributed on each side of the shaft, or any convenient number to give a rational compromise between a good characteristic curve and a well-distributed torque on the shaft, the propeller shaft being provided with an equal number of Rotors.

The Universal Transmission of Electromagnetic Power

This title expresses the dream or final goal of the great physicist Nikola Tesla (about 1905). In his British Patent No. 8200, he claims to have devised apparatus capable of generating "electrical disturbances" not only approximating to, but even surpassing those of lightning; and he further claims to have reproduced by the aid of such apparatus the phenomenon of "stationary waves" on the earth. Or World-waves. By means of such waves he professed to transmit electrical power without the employment of cables.

This dream is now within the reach of Science through the new Primary Technique.

Let us compare the principles of Nikola Tesla and the present radio-technique with that of the work of Karl Schappeller.

The whole of modern radio-technique depends on making a disturbance in the ether through the generation of electrical resonance.

During a thunderstorm Tesla noted that the earth appeared to behave, despite its vast extent, like a conductor of limited dimensions.

He suggested that the wholesale distribution of electrical energy might be possible by means of stationary waves on the earth's surface, using the entire world as a conductor.

So whilst Tesla regarded the earth merely as a conductor, Schappeller discovered that it was the obvious source and storehouse of all available energy, in addition to being a conductor.

Tesla's discovery was of a secondary nature and led him to produce and transmit power by causing a disturbance in the ether through wave propagation by resonance, in which the earth functioned merely as a conductor.

Nearly 40 years have elapsed but it is still not feasible to transmit power as such on the Tesla system [ed.: only because of industrial politics], although the radio-technique has been developed with great success.

Schappeller has always regarded the "causing of a disturbance in the Ether" for the purpose of transmitting power on a large scale as neither feasible nor desirable, and even for small powers, such as are used in the radio-technique, he regarded it as an "invert method".

The Cosmos itself functions, as we have seen, by stressfield on stressfield or vacuum on vacuum.

The secret for the transmission of power on a large scale over considerable distances lies in the rhythmical stimulation of the Ether membrane, of like kind, rather than a disturbance produced by an entirely artificial propagation of what, at present, is termed "wave formation".

The production of a spark is a disruption, whereas the formation of a sun or other variant is not, because the latter is the orderly or disciplined formation of a sublimite out of one of the ether components itself, through polarization -- Nature's universal method.

Again, resonance is a disturbance; a power or biomagnetic stressfield is not. On the contrary, it is a stimulation which can be utilized through the New Technique for power transmission, telegraphy, telephony, television, production of light and heat, sublimation in place of transmutation of metals, and in the curative applications already cited -- and all these in a manner far in advance of that made possible by the highest and latest developments of the techniques based on the Secondary Physics.

Schappeller, in principle, cannot be wrong in this because it is the method by which Nature herself operates in the Cosmos, and the only method available to her.

So magnetism is radiated which, from the physiological point of view, is not merely harmless but actually beneficial and stimulating to desirable forms of life (a subject dealt with in the medical Section).

The transmission of great power is accomplished by the installation of Power Centrals, that is, Stators of larger dimensions designed for transmission of energy to the thousands of power or telephone (new form) Stators throughout a given district -- the equivalent of the present transformers or boosters, which will in fact constitute the "new grid". But this dynamic or "energy grid" is free, mobile, unbound to material or wires, and in its turn is supplied from a Central Station of powerful Stators.

This is the ultimate application of the Primary technique as a whole; in the earlier stages, the present generating stations and grid could be utilized, substituting for turbo- or hydro-electric Prime Movers the new Stators and Rotors, the Prime Mover set of the New Technique.

The distributing Central Spheres of "Centrals" or mobile grid boosters, Schappeller declares, will have an effective range of up to 10 kilometers.

It will probably by now be obvious that since this is "biomagnetism" there will be technical and other applications of the Primary Force of a fundamental character, the nature of which cannot yet be either conceived or visualized.

Scalar Fields

PDF Files :

[Capt. Robert Collins : "Soviet Research on Unified Field Theories, False Vacuum States, and Antigravity \(U \)", Appendix 1 -- Far Field Equations of Maxwell's Equations.](#)

[Warren York : "Scalar Wave Technology" ; *Extraordinary Science* \(Jan/Feb/Mar 1989 \).](#)

[Thomas Bearden : "Basic Scalar EM Concepts and a Scalar Wave Detector" ; *U.S. Psychotronics Assoc. Newsletter* 5 \(4 \): 4-7.](#)

[Jack Dea : "Fundamental Fields and Phase Information" ; *Planetary Association for Clean Energy* 4 \(5 \): 12-15.](#)

[J. B. Bronzan : "The Magnetic Scalar Potential" ; *Amer. J. Physics* 39 : 1357-1359 \(Nov. 1971 \).](#)

[E.T. Whittaker : "On an Expression of the Electromagnetic Field Due to Electrons by Means of Two Scalar Potential Functions" ; *Proc. London Math. Soc.*, Series 2, 1 : 367-372 \(1904 \).](#)

[A. Dolgov & I. Khriplovich : "Propagation of Electromagnetic Waves in a Gravitational Field" ; *Soviet Physics JETP* 58 \(4 \): 671-674 \(Oct 1983 \).](#)

[L. Kofman, *et al.* : "Inflationary Universe Generated by the Combined Action of a Scalar Field and Gravitational Vacuum Polarization" ; *Physics Letters* 157-B \(5, 6 \) : 361-366 \(25 July 1985 \).](#)

[Gregory Hodowanec : "Do Intense Scalar Fields Affect Life Processes?"](#)

http://en.wikipedia.org/wiki/Scalar_field

Scalar Field

In mathematics and physics, a scalar field associates a scalar value, which can be either mathematical in definition, or physical, to every point in space. Scalar fields are often used in physics, for instance to indicate the temperature distribution throughout space, or the air pressure. In mathematics, or more specifically, differential geometry, the set of functions defined on a manifold define the commutative ring of functions.

Just as the concept of a scalar in mathematics is identical to the concept of a scalar in physics, so also the scalar field defined in differential geometry is identical to, in the abstract, to the (unquantized) scalar fields of physics.

Definition

A scalar field is a function from $\mathbb{R}^n$ to $\mathbb{R}$. That is, it is a function defined on the n -dimensional Euclidean space with real values. Often it is required to be continuous, or one or more times differentiable, that is, a function of class C^k .

The scalar field can be visualized as a n -dimensional space with a real or complex number attached to each point in the space.

The derivative of a scalar field results in a vector field called the gradient.

Differential geometry

A scalar field on a C^k -manifold is a C^k function to the real numbers. Taking $\mathbb{R}^n$ as manifold gives back the special case of vector calculus.

A scalar field is also a 0-form. The set of all scalar fields on a manifold forms a commutative ring, under the natural operations of multiplication and addition, point by point.

Uses in physics

In physics, scalar fields can be used to ascribe forces (which are usually vector fields) to a more general scalar field, the gradient of which describes the force.

- * Potential fields, such as the Newtonian gravitational potential field for gravitation, or the electric potential in electrostatics, are scalar fields which describes the more familiar forces.

- * A temperature, humidity or pressure field, such as those used in meteorology. Note that when modeling weather on a global basis, the surface of the Earth is not flat, and thus the general language of curvature in differential geometry plays a role. Dopplerized weather radar generates a projection of a vector field onto a scalar field.

Examples in quantum theory and relativity

- * In quantum field theory, a scalar field is associated with spin 0 particles, such as mesons or bosons. The scalar field may be real or complex valued (depending on whether it will associate a real or complex number to every point of space-time). Complex scalar fields represent charged particles. These include the Higgs field of the Standard Model, as well as the pion field mediating the strong nuclear interaction.

- * In the Standard Model of elementary particles, a scalar field is used to give the leptons their mass, via a combination of the Yukawa interaction and the spontaneous symmetry breaking. This

mechanism is known as the Higgs mechanism [1]. This supposes the existence of a (still hypothetical) spin 0 particle called Higgs boson.

- * In scalar theories of gravitation scalar fields are used to describe the gravitational field.

- * scalar-tensor theories represent the gravitational interaction through both a tensor and a scalar. Such attempts are for example the Jordan theory [2] as a generalization of the Kaluza-Klein theory and the Brans-Dicke theory [3].

- * Scalar fields like the Higgs field can be found within scalar-tensor theories, using as scalar field the Higgs field of the Standard Model [4], [5]. This field interacts gravitatively and Yukawa-like (short-ranged) with the particles that get mass through it [6].

- * Scalar fields are found within superstring theories as dilaton fields, breaking the conformal symmetry of the string, though balancing the quantum anomalies of this tensor [7].

- * Scalar fields are supposed to cause the accelerated expansion of the universe (inflation [8]), helping to solve the horizon problem and giving an hypothetical reason for the non-vanishing cosmological constant of cosmology. Massless (i.e. long-ranged) scalar fields in this context are known as inflatons. Massive (i.e. short-ranged) scalar fields are proposed, too, using for example Higgs-like fields (e.g. [9]).

Other kinds of fields

- * Vector fields, which associate a vector to every point in space. Some examples of vector fields include the electromagnetic field and the Newtonian gravitational field.

- * Tensor fields, which associate a tensor to every point in space. For example, in general relativity gravitation is associated with a tensor field (in particular, with the Riemann curvature tensor). In Kaluza-Klein theory, spacetime is extended to five dimensions and its Riemann curvature tensor can be separated out into ordinary four-dimensional gravitation plus an extra set, which is equivalent to Maxwell's equations for the electromagnetic field, plus an extra scalar field known as the "dilaton".

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http://en.wikipedia.org/wiki/Scalar_field_theory

Scalar Field Theory

In theoretical physics, scalar field theory can refer to a classical or quantum theory of scalar fields. Such a field is distinguished by its invariance under a Lorentz transformation, hence the name "scalar", in contrast to a vector or tensor field. The quanta of the quantized scalar field are spin-zero particles, and as such are bosons.

No fundamental scalar fields have been observed in nature, though the Higgs boson may yet prove the first example. However, scalar fields certainly do appear in the effective field theory descriptions of many physical phenomena. Because of the relative simplicity of the mathematics involved, scalar fields are often the first field introduced to a student of classical or quantum field theory.

Although scalar fields are Lorentz scalars, they may transform nontrivially under other symmetries, such as flavour or isospin. For example, the pion is invariant under the restricted Lorentz group, but is an isospin triplet (meaning it transforms like a three component vector under the SU(2) isospin symmetry). Furthermore, it picks up a negative phase under parity inversion, so it transforms nontrivially under the full Lorentz group; such particles are called pseudoscalar rather than scalar. Most mesons are pseudoscalar particles.

In this article, the repeated index notation indicates the Einstein summation convention for summation over repeated indices. The theories described are defined in flat, D-dimensional Minkowski space, with (D-1) spatial dimension and one time dimension and are, by construction, relativistically covariant. The Minkowski space metric, $\eta_{\mu\nu}$, has a particularly simple form: it is diagonal, and here we use the + - - - sign convention.

[http://en.wikipedia.org/wiki/Scalar_field_theory_\(pseudoscience\)](http://en.wikipedia.org/wiki/Scalar_field_theory_(pseudoscience))

Scalar field theory (pseudoscience)

For the quantum mechanical "scalar field theory" which is a field theory of spinless particles, see "Scalar field theory"

Scalar field theory (SFT) is a set of theories in a model which posits that there is a basic mechanism that produces the electric field and the magnetic field. Proponents of this theory claim that it advances the standard electromagnetic theory.

Scalar waves in these theories (as opposed to a scalar field in mainstream physics) are hypothetical waves, which differ from the conventional electromagnetic transverse waves by having one oscillation level parallel to the direction of propagation; they thus have characteristics of longitudinal waves. Their existence however, as presupposed in numerous theories, has not been supported by experiment. Scalar waves are called also "electromagnetic longitudinal waves", "Maxwellian waves", or "Teslawellen" (tr., "Tesla waves"). Variants of the theory claim

that Scalar electromagnetics (also known as scalar energy) is the background quantum mechanical fluctuations and associated zero-point energies (in contrast to "vector energies" which sum to zero).[citation needed]

Description

Terminology

The basic understanding of scalar field theory begins with several definition of terms within the theory, which are also used in academic physics, but assigns them other meanings. A "scalar field" is a set of assigned observable magnitudes at every point in n-dimensional space (compare this with the standard definition; n is also 4 or greater). [1] An "electric field" is composed of the spinning charged mass, in motion through a finite change in electrostatic scalar potential (compare this with the current academic definition). A "potential" is pure energy and, is any ordering (static or dynamic) in the vacuum (eg., the position of the object relative to other objects). A "scalar potential" is the stationary ordering in the virtual particle flux of the vacuum (compare this with the current academic definition). A "vector potential" is any nonstationary ordering in the virtual particle flux of vacuum (compare this with the current academic definition). Scalar potentials and vector potentials are thus defined as: "contained" inside the energy domain.[citation needed]

Magnetic fields interaction

SFT is based on "non-symmetrical regauging" potentials, demonstrated by the interaction of two magnetic fields.

When the field lines oppose each other, the magnets are pulled together. When the fields are aligned in the same direction, the magnets push apart. When two magnets strongly oppose each other but are not permitted to move apart, the force between them is said to create a "scalar bubble" between the magnets. The greater the repulsive force, the larger this scalar bubble becomes. As the magnets move away and the pushing force decreases, the scalar bubble shrinks in size and strength.

In a similar manner, two magnets that are strongly attracted create a "scalar void" between them that grows larger the closer the two magnets become. Two magnets powerfully attracted to one another create a very large scalar void, that decreases as the attracting magnets are moved apart.

Despite the claims of its proponents, no repeatable experiments were able to show the existence of the scalar field. All observed effects were shown to comply to the standard physical laws of electrodynamics. The observations are in spectacular agreement not only with classical electromagnetics, but also with quantum electrodynamics, both of which are fields of physics.

Field effects of scalar energy

SFT suggests that scalar energy can move through space much like an electromagnetic wave. However, the operating principles are different. The regular expansion and contraction of a

scalar bubble/void is like rhythmically splashing water on a pond. It sends out ripples through the general scalar field that can subtly affect the size and strength of distant scalar bubbles/voids.

This means that a pair of magnets that are rhythmically opposing/attracting each other are sending out scalar ripples through space that will slightly perturb the scalar bubble/void between a second pair of magnets nearby. The net effect is that the attraction and/or repulsion between the second pair of magnets exhibits a change in strength, even though the magnets and fields themselves are motionless.

According to skeptics, the following description given for an application to a communication system reportedly failed to give reproducible results.

A basic scalar communications system

A scalar communications broadcast antenna does not make any sense according to normal electromagnetic theory. The goal of a scalar broadcast antenna is to create powerful repulsion/attraction between two magnetic fields, to create large scalar bubbles/voids. This is done by using a broadcast antenna with two opposing electromagnetic coils that effectively cancel out as much of each other's magnetic field as possible. An ideal scalar broadcast antenna will emit no electromagnetic field (or as little as possible), since all power is being focused into the repulsion/attraction between the two opposing magnetic fields. Normal electromagnetic theory suggests that since such a device emits no measurable electromagnetic field, it is useless and will only heat up. For a scalar broadcast antenna, any normal RF emission is wasted energy.

A scalar reception antenna similarly excludes normal electromagnetic waves and only measures changes in magnetic field attraction and repulsion. This will typically be a two-coil powered antenna that sets up a static opposing or attracting magnetic field between the coils. The coils are counter-wound so that any normal RF signal will be picked up by both coils simultaneously and effectively cancel itself out, leaving only the scalar component.

Scalar field detection by normal RF antennas

Even though a scalar wave train does not contain the regular EM components that are used by radio frequency communications, it can still be detected by a normal RF antenna, if that antenna is in the presence of some other static magnetic field. When the scalar wave train passes through, it will create a disturbance in the field surrounding that magnet and make the field lines move, which will impart a small electrical current in the standard RF antenna, as if the magnet itself were moved.

Since all normal RF antennas are immersed in the magnetic field of the planet, they can serve as crude scalar detectors, though the reception will be extremely weak and washed out by any normal RF in the vicinity. Detection ability is greatly increased by enclosing the antenna and circuitry in a Faraday cage, and by placing a very strong magnet near the antenna inside the cage.

Scalar antennas and detectors

Various proponents have claimed to have developed instruments with characteristics and specifications for different designs. Scalar antenna and detector examples include:

Types [2]

- * Magnetostatic Detectors
- * Electrostatic Detectors
- * Barkhausen Detector

Windings [3]

- * single-wire bifilar
- * dual-wire bifilar
- * pancake bifilar
- * cone bifilar

Proponents of the theory have constructed bifilar test antennas as isolation transformers. These have taken the form of a ferrite rod, ferrite ring, an air core, or the common square transformer shape.

References

1. ^ T. E. Bearden, "Scalar field". A partial glossary for scalar electromagnetics and subtle phenomena, 1988 (updated 2000).
2. ^ Robert Shannon, "Notes on Scalar Detector Designs". 1996.
3. ^ More Electromagnetism : Scalar Waves". RMCybernetics, 2005.

<http://www.rense.com/general84/ben.htm>

Benjamin Fulford's 'Creature' (?)

From **Brad Steiger**
1-26-9

Absolutely Bizarre 'Creature' In Benjamin Fulford's Spine

On Friday, January 23rd, Benjamin Fulford shocked the audience of the Jeff Rense Program by emailing the claim, accompanied by a photograph, that surgeons had removed a bizarre life form, very much resembling a salamander, from his spine. Those who could view the strange creature were shocked and horrified. Immediately, everyone who saw the "thing" wondered what it was--and if it were real.

Whether the creature was real or whether it was an ill-advised hoax, I wanted to find out if it was possible to place or to inject such a life form into an unsuspecting victim. One of the experts that I queried was a top-research scientist and inventor, who quickly responded that not only was it

possible to inject the embryo of a parasite into a targeted victim without his or her knowledge, but that in the world of deep black operations, Russian scientists had already perfected such grotesque methodology.

I asked the scientist to come on the Rense Program and discuss the science of bioenergetics being developed for Black Ops projects, but he informed me that he had been placed under "very strict warnings" not to make any appearances on any radio or television program. What he did do was to write a very informative email on the incredible world of bioenergetics and psychoenergetics which I reproduce below with his special permission. At the present time, he prefers to remain anonymous.

Yes, Brad, the "embryo" for such a "new living parasite critter" could indeed be developed and inserted into a targeted victim, including at a great distance, but only by the highly "clandestine" world of the off-budget deep black operations -- particularly those in Russia, which are still far ahead of anything in the West.

The Russian science of "energetics" -- developed shortly after WW II by a tremendously massive Soviet effort of some of the best nonlinear scientists on earth -- did solve some of the perplexities of our modern physics, of psychology and biology, etc. And under Stalin's iron boot, the new and spectacular Russian scientific developments were immediately placed into extended weapons development.

To this day, our own more-materialistic scientists still do not really comprehend Soviet energetics. (And they also still do not even know what a mind actually is, what a "dead" (separated) mind is, or what a "mind and body linked living system" really is).

Soviet energetics had three branches: (1) the science of inert matter, called by the same name "energetics". (2) the science of living biological systems, where a mind is linked to a living body. This branch is called "bioenergetics". (3) the science of the mind and mental phenomena, which is called "psychoenergetics".

Western science, being so materialistic, has not yet comprehended the most important thing about "mind": that is, that the mind and mental things exist in time, but not in 3-space.

If one turns to modern quantum field theory, then there are now FOUR photons available, not the two transverse photons so well known to classical electrodynamicists etc. In the following discussion, the travel direction of the photon in 3-space is assumed along the Z axis. The "regions of vibration" of the photon -- i.e., the type and direction of its oscillation -- may occur in four ways. These are (1, 2) the two "orthogonal" oscillation polarizations, one along the X-axis and the other along the Y-axis. Then there is (3) the longitudinal (i.e., longitudinally-polarized) photon, which oscillates along the Z-direction of travel itself. And finally there is (4) the time-polarized or "scalar" photon, which oscillates along the time axis. These four photons are all in standard quantum field theory, even in the West.

Now note that only the two transverse-polarized photons (1) and (2) are observable by our instruments. The longitudinal (3) photon is nonobservable, as is the time-polarized (4) photon.

Here's the first "magic":

A combination of a longitudinal photon (3) and a time-polarized photon (4) is OBSERVABLE AS A SPIKE OF VOLTAGE -- more precisely, a spike of electrostatic scalar potential.

Now suppose you have a hidden (nonobservable) electromagnetic "system" you have built in the time-domain, so that it is built only of time-polarized photons. The system is not observable, nor is any part of it observable.

But then suppose you also build a corresponding set of operations (a "system") in 3-space matter so that this new EM system consists only of longitudinal photons. And suppose you have made this "longitudinal" photon system's operations so that they exactly parallel the time-domain system's operations. In short, you now can superpose your longitudinally-polarized EM wave system and the time-polarized EM wave system. And your instruments will now observe the combination -- i.e., the actual ongoing linkage system's operation -- as a very strange but highly organized system of voltage spikes!

The West has totally missed the fundamental characteristic of mind: Mind occupies time but not 3-space. Hence, mind is a totally "electromagnetic" system, but it is comprised of only non-observable time-polarized photon operations!

Well, how could you possibly couple that mind to a biological (3-space) material body?

You would have to have a parallel longitudinally-polarized set of electromagnetic operations ongoing in that 3-space body.

And the direct coupling of those two "operational systems" would be the mechanism of the coupling of the mind to the body -- and it would and could be directly observed by our instruments as a correlated system of voltage spikes!

And that is why the dendrite cells of the body all have so many endings and "continual and incredible voltage spikings"! In looking at the entire set of spiking, you are looking at the "coupling mechanism" (that couples the mind to the body) in action! That set of spikings is what links or couples (coherently) the living temporal mind to the living biological body!

Now if you place great scientific effort on that area and in that fashion, for some decades, you will eventually be able to (1) directly produce an operating living mind in the laboratory, including a human mind and any version of it, and (2) link it to a properly designed biological body (to a proper set of longitudinal operations therein), and this will give you a living biological system created directly in the laboratory.

In about 1990, the Russian hidden psychoenergetics science had progressed to the point that living minds were being designed and produced in the laboratory, including various "versions" (personalities) of a given mind.

If one knows where to look, there is and has been quite a bit of external "testing" by the Soviets to stimulate the West and see if we recognize what is being done (in short, to see whether the West also has developed such science). Sadly, the provocative tests have clearly shown the Soviets that we do not have such capabilities or such scientific development. Indeed, we still do not even recognize that "testing" is even going on!

One of the New Energy scientists--Tom Bearden--stumbled onto a portion of this Soviet energetic work. In his 2005 book, *Oblivion: America at the Brink*, Bearden gave an abbreviated presentation of the development of the energetics weaponry and some of the actual "evocative testing" examples. There are many more weapons and examples that he did not run across.

Presently, the Russians can clandestinely duplicate the mind of a targeted individual, in the duplicate mind they can "alter" portions to produce "different behavior" if that alternate mind is inserted into the targeted individual in the West, and then they can do several things. (1) they can just leave it in that individual as an extra "multiple personality," so they have the 'perfect spy' that hears everything the person's ears hear, sees everything his eyes see, and also receives all the thoughts that his true mind thinks. And they can put that on the TV screen in Moscow if they wish. With the portion for which he actually encountered evidence, Bearden gave examples of the military use of such capabilities in *Oblivion*.

Sadly, the West still thinks that the human "mind" is just some electron wiggles in the brain, and that we are like a giant "nonliving" computer.

There is also a way to directly engineer any physical observable system one wishes, in any part of it, living or nonliving. One can directly engineer and change inert matter or living matter, etc. I have learned that Bearden plans a future book (hopefully this year) dealing with this scientific methodology, which he calls "precursor engineering", but which the Soviets still have embedded in its term "energetics" with its associate science (and weapons).

Once you understand something about this 3-fold secret weapons science of energetics that the Soviets have highly developed, then you can understand how -- with such developed technology -- one could directly build both the physical body system (its correlated longitudinal EM photon system) and the "mind system" of such a "living critter" one creates in the laboratory, and how one could then use such capability (such weird and artificially-created critters) by sudden surprise on an unsuspecting enemy to overwhelm and crush him almost instantly.

As you can see, we are referring to a gigantic leap forward in what the West calls "biological weapons" and in "biological warfare".

Well, one should be looking for "very strange incidents" suggesting the development of such "critters" and parasites. And here is at least one "candidate" occurrence.

This present "incredible tumor" discovery [in Benjamin Fulford's spin] may be the discovery of one "provocative test" of these capabilities, just to see what our western science and biological warfare experts make of it.

And if it is a "provocative test" to see what we know, of if we know anything of it at all, we have certainly once again assured them we have not the foggiest notion of the true reach of Soviet energetics science.

WO2008092205

METHOD AND APPARATUS FOR ANALYSING GEOLOGICAL FEATURES

Inventor(s): DUNCAN ANDREW [AU]

Classification: - international: G01V3/00; G01V3/15; G01V3/16; G01V3/17; G01V3/00; G01V3/15 - European: G01V3/165

Abstract -- An apparatus (10) for analysing geological features comprises a receiver (20) for measuring a magnetic field received from adjacent geological features (18) excited by a periodic transmitted electromagnetic signal, wherein the measured magnetic field is a scalar amplitude of the magnetic field or a scalar amplitude of the magnetic field is derivable from the measured magnetic field, wherein the receiver generates a received signal from the measured magnetic field; and a processor (28) for filtering unwanted signal components which are substantially synchronous with the periodic transmitted electromagnetic signal from the scalar amplitude of the received signal or the scalar amplitude derived from the received signal, such that target geological features are able to be analysed using the filtered scalar amplitude.

WO2008060213

**METHOD FOR PREDICTING WHERE THE NEXT MAJOR EARTHQUAKE
WILL TAKE PLACE WITHIN AN AREA**

Inventor(s): SLUNGA RAGNAR [SE]

Classification: - international: G01V1/28; G01V1/00; G01V1/28; G01V1/00- European: G01V1/00E

Also published as: WO2008060213 // SE0602417 (A) // SE530569 (C2)

Abstract -- The present invention relates to a method of predicting where the next major earthquake will occur within a area based on knowledge of the stress tensor field in the area, including determining stress tensors that have caused a shear slip in the form of an earthquake. It is first assumed that said first shear slip is the only one that is not stable according the Mohr-Coulomb slip criterion applied to contemplated fault planes with all conceivable orientations and calculating according to the Mohr- Coulomb slip criterion the principal stress directions as a function of the friction coefficient f . After that, it is established according to the Mohr-Coulomb slip criterion a relationship between two of the principal stresses.; Moreover the normal stress s_v in a known direction S_v is determined and, according to the elasticity theory, a relationship between the normal stress s_v and the principal stresses is established. Then expressions of the three principal stresses as a function of a scalar parameter is established, and a function of the elastic deformation energy per unit of volume relative to an isotropic reference stress state with the pressure s_v based on the expressions of the principal stresses is established. Finally, the remaining degree of freedom is eliminated by determining the value of said scalar parameter which minimises the function of the elastic deformation energy and the value of the scalar parameter in the expressions of the principal stresses is inserted.

WO2008050137
MAGNETIC SIGNATURE ASSESSMENT

Inventor(s): TWELVETREES ROGER [GB]; COX EMILY [GB]; GANDERTON CARL [GB]; RAWLINS PAUL [GB]; WATSON STEPHEN MILES [GB]

Classification: - international: B63G9/06; B63G9/00 - European: B63G9/06

Also published as: GB2443265 (A)

Abstract -- Magnetic signature assessment apparatus for a vehicle comprising sensors for incorporation in the vehicle to measure the magnetic field normal to a closed surface at least approximately bounding the vessel and processing means for calculating from the normal field measurements a scalar magnetic potential outside the surface. Apparatus may be provided on the vehicle to generate a magnetic field to suppress the magnetic signature corresponding to the scalar potential. The invention also extends to corresponding methods and to programs for implementing those methods.

[http://v3.espacenet.com/publicationDetails/biblio?](http://v3.espacenet.com/publicationDetails/biblio?KC=A&date=20060810&NR=2005105859A&DB=EPODOC&locale=en_EP&CC=RU&FT=D)

[KC=A&date=20060810&NR=2005105859A&DB=EPODOC&locale=en_EP&CC=RU&FT=D](http://v3.espacenet.com/publicationDetails/biblio?KC=A&date=20060810&NR=2005105859A&DB=EPODOC&locale=en_EP&CC=RU&FT=D)

RU2005105859
LONGITUDINAL-SCALAR ELECTROMAGNETIC WAVE RADIATING DEVICE

Applicant(s): KUZNETSOV JURIJ NIKOLAEVICH

Classification: - international: H01Q13/02; H01Q13/00

Also published as: RU2287212

Abstract -- FIELD: radio communications and radiolocation, geological prospecting, and medicine. ^ SUBSTANCE: proposed radiating device is provided with second waveguide and second exciting component; exciting components are installed in waveguides which have different length and are brought to single plane through their open ends and further through return horn to equally shaped adding waveguide terminating in horn. Waveguides differ by half-length of common radiated electromagnetic wave. In planar-wave approximation strength vectors of electric and magnetic fields are oriented in longitudinal-scalar electromagnetic wave in open space collinearly to vector of electromagnetic energy flux density ($S = E_i |H_i| + H_i |E_i|$). Irrotational electric field of longitudinal electromagnetic wave builds up potential difference across open electric conductor longitudinally oriented to this field.; Magnetic field of longitudinal-scalar electromagnetic wave acts upon moving electric charges by force directed along their velocity vector. ^ EFFECT: enhanced reliability due to use of irrotational longitudinal-scalar electromagnetic waves apart from rotational cross-vector ones.

[http://v3.espacenet.com/publicationDetails/biblio?](http://v3.espacenet.com/publicationDetails/biblio?KC=A1&date=20050908&NR=2005197808A1&DB=EPODOC&locale=en_EP&CC=US&FT=D)

[KC=A1&date=20050908&NR=2005197808A1&DB=EPODOC&locale=en_EP&CC=US&FT=D](http://v3.espacenet.com/publicationDetails/biblio?KC=A1&date=20050908&NR=2005197808A1&DB=EPODOC&locale=en_EP&CC=US&FT=D)

US2005197808

Method for determining electrical and magnetic field effects

Inventor(s): KUO, AN-YU

Classification: - international: G06F17/10; G06F17/10; (IPC1-7): G06F17/10

Abstract -- A method for determining electrical and magnetic field effects determines Lanczos matrices by performing a preconditioned conjugate gradient method using a nested multi-grid, vector and scalar potential preconditioner so that Pade via Lanczos frequency expansion may be used to determine the electrical and magnetic field effects over a frequency range without having to perform computationally slow and memory intensive matrix decomposition.

[http://v3.espacenet.com/publicationDetails/biblio?](http://v3.espacenet.com/publicationDetails/biblio?KC=A1&date=20040311&NR=2004046553A1&DB=EPODOC&locale=en_EP&CC=US&FT=D)

[KC=A1&date=20040311&NR=2004046553A1&DB=EPODOC&locale=en_EP&CC=US&FT=D](http://v3.espacenet.com/publicationDetails/biblio?KC=A1&date=20040311&NR=2004046553A1&DB=EPODOC&locale=en_EP&CC=US&FT=D)

US2004046553

Vector Measurement of a Magnetic Field

Inventor(s): LEGER JEAN-MICHEL [FR]; GRAVRAND OLIVIER [FR]; BERTRAND

FRANCOIS Classification: - international: G01R33/24; G01R33/24; (IPC1-7): G01V3/00 - European: G01R33/24

Also published as: US6844726 // FR2815416 // FR2815416 // WO0233434 // EP1344075

Abstract -- A vectorial magnetometer (1), measures the components of a magnetic field in three directions (Oxyz) using a scalar magnetometer (2). The field is periodically modulated in each of the directions by generators (Gx, Gy, Gz) which have a specific frequency for each direction and that power coils (Ex, Ey, Ez). Synchronous demodulation of the of the output signal of the scalar magnetometer (2) for each of the three frequencies permits the relative continuous component of each axis to be found.; The vectorial magnetometer (1) is characterised in that it has means (Dx D'x, Dy D'y, Dz D'z) that can carry out a double demodulation for phase and quadrature for each of the frequencies and processing means (70) that use the continuous component modules for phase and quadrature to calculate a transfer function of the scalar magnetometer at the frequency in question, and to apply this function to the correction of the components.

[http://v3.espacenet.com/publicationDetails/biblio?](http://v3.espacenet.com/publicationDetails/biblio?KC=A1&date=19991215&NR=0964260A1&DB=EPODOC&locale=en_EP&CC=EP&FT=D)

[KC=A1&date=19991215&NR=0964260A1&DB=EPODOC&locale=en_EP&CC=EP&FT=D](http://v3.espacenet.com/publicationDetails/biblio?KC=A1&date=19991215&NR=0964260A1&DB=EPODOC&locale=en_EP&CC=EP&FT=D)

EP0964260

Device for Measuring Magnetic Field Components Comprising a Scalar Magnetometer

LEGER, JEAN-MICHEL

Classification: - international: G01R33/26; G01R33/24; (IPC1-7): G01R33/26 - European:

G01R33/26

Also published as: FR2779530 // US6313628 // CA2274623

Abstract -- The system uses a scalar magnetometer with additional fields applied by external coils, which are arranged with mutually orthogonal axes. The system for measuring the components of a magnetic field includes a scalar magnetometer (10,14,16,21,24,26,30,40,46,56). This magnetometer provides an output signal corresponding to the modulus of the applied magnetic field. There are also at least two conducting coils (Ex,Ey,Ez) disposed around the scalar magnetometer with mutually orthogonal axes. Each coil is supplied with a current at a given frequency. Processing circuits (Dx,Dy,Dz) receive the signal produced by the magnetometer and effect synchronous demodulation of the signal at the respective frequencies, to provide signals (Bx,By,Bz) corresponding to the components of the magnetic field which exists in this region.

[http://v3.espacenet.com/publicationDetails/biblio?](http://v3.espacenet.com/publicationDetails/biblio?KC=A&date=19991105&NR=11306328A&DB=EPODOC&locale=en_EP&CC=JP&FT=D)

[KC=A&date=19991105&NR=11306328A&DB=EPODOC&locale=en_EP&CC=JP&FT=D](http://v3.espacenet.com/publicationDetails/biblio?KC=A&date=19991105&NR=11306328A&DB=EPODOC&locale=en_EP&CC=JP&FT=D)

JP11306328

METHOD AND DEVICE FOR GENERATING TWO-DIMENSIONAL SCALAR FIELD

KAWAI, NAOKI

Classification: - international: G03F1/00; G06T1/00; G03F1/00; G06T1/00; (IPC1-7): G06T1/00; G03F1/00

Abstract -- PROBLEM TO BE SOLVED: To extract flow of each conduit from a conduit picture to generate a two-dimensional scalar field. SOLUTION: Conduits are extracted from the conduit picture one by one (S2), and representative points and values of flow are defined for each conduit, and respective values of flow are registered in positions corresponding to these representative points in a separately prepared two-dimensional area, and values of flow in other positions of the two-dimensional area are interpolated based on registered values of flow and their positions (S5), thus generating a two-dimensional scalar field.

[http://v3.espacenet.com/publicationDetails/biblio?](http://v3.espacenet.com/publicationDetails/biblio?KC=A&date=19981201&NR=5845220A&DB=EPODOC&locale=en_EP&CC=US&FT=D)

[KC=A&date=19981201&NR=5845220A&DB=EPODOC&locale=en_EP&CC=US&FT=D](http://v3.espacenet.com/publicationDetails/biblio?KC=A&date=19981201&NR=5845220A&DB=EPODOC&locale=en_EP&CC=US&FT=D)

US5845220

Communication method and apparatus with signals comprising scalar and vector potentials without electromagnetic fields

PUTHOFF, HAROLD

Classification: - international: H01Q7/00; H04B5/00; H01Q7/00; H04B5/00; (IPC1-7): H04B1/00

- European: H01Q7/00; H04B5/00

Abstract of US 5845220 (A)

Information that changes as a function of time is communicated from a transmitting site to a receiving site by transmitting a signal comprising scalar and vector potentials without including

ay electromagnetic field. The potentials vary as a function of time in accordance with the information.

<http://v3.espacenet.com/publicationDetails/biblio?>

[KC=A&date=19751202&NR=3924210A&DB=EPODOC&locale=en_EP&CC=US&FT=D](http://v3.espacenet.com/publicationDetails/biblio?KC=A&date=19751202&NR=3924210A&DB=EPODOC&locale=en_EP&CC=US&FT=D)

US3924210

Field Shaping Magnet Structure

1975-12-02

Inventor(s): DIONNE NORMAN J

Classification: - international: H01J31/50; H01F7/02; H01F7/20; H01J29/64; H01J31/08; H01F7/02; H01F7/20; H01J29/58; (IPC1-7): H01F7/02- European: H01F7/02C1; H01F7/20

Also published as: NL7512795 // NL7512795 // NL172496 // NL172496 // JP51067961

Abstract -- A magnet structure having a pair of spaced pole pieces interconnected by a reluctance circuit comprising an operatively aligned array of soft magnetic members suitably spaced apart by interposed nonmagnetic material to provide between the pole pieces a preferred magnetic scalar potential and an associated magnetic flux distributed as desired over a relatively large volume adjacent the array.

<http://amasci.com/hum/adetect.txt>

Date: 10 Feb 97 18:50:04 EST

From: "Sara T. Allen"

To: Taos Hum list serve <taoshum-l@eskimo.com>

Subject: Scalar fields - Honeywell Patent Numbers

List of patents by Raymond C. Gelin as but assigned to Honeywell:
(note that a Vector Potential is a scalar field)

4,429,280

31 Jan 1984

Apparatus and Method for Demodulation of a Modulated Curl-Free Magnetic Vector Potential.

4,429,288

31 Jan 1984

Apparatus and Method for Modulation of a Curl-Free Magnetic Vector Potential Field.

4,432,098

14 Feb 1984

Apparatus and Method for Transfer of Information by Means of a Curl-Free Magnetic Vector Potential Field.

4,447,779

8 May 1984

Apparatus and Method for Determination of a Receiving Device Utilizing a Curl-Free Magnetic Vector Potential Field.

4,605,897

12 Aug 1986

Apparatus and Method for Distance Determination Between a Receiving Device and a Transmitting Device Utilizing a Curl-Free Magnetic Vector Potential Field.

4,491,795

1 Jan 1985

Josephson Junction Interferometer Device for Detection of Curl-Free Magnetic Vector Potential Fields.

Also, you can find a good article in Scientific American of April 1989, pp. 56-62, "Quantum Interference and the Aharonov-Bohm Effect" by Yoseph Imry & Richard Webb.

Another one:

US5845220: Communication method and apparatus with signals comprising scalar and vector potentials without electromagnetic fields , H. Puthoff

<http://www.unusualresearch.com/scalarbib/scalarbib.htm>

Y. Aharonov and D. Bohm, "Significance of Electromagnetic Potentials in in the Quantum Theory," The Physical Review, vol. 115, no. 3, Aug. 1959.

Abstract: In this paper, we discuss some interesting properties of the electromagnetic potentials in the quantum domain. We shall show that, contrary to the conclusions of classical mechanics, there exists effects of potentials on charged particles, even in the region where all the fields (and therefore the forces on the particles) vanish. We shall then discuss possible experiments to test these conclusions; and, finally, we shall suggest further possible developments in the interpretation of the potentials.

Yoseph Imry and Richard A. Webb, "Quantum Interference and the Aharonov-Bohm Effect," Scientific American, vol. 260, no. 4, Apr. 1989.

Abstract: Can electrons be influenced by a nearby magnet so well shielded that its force field cannot be detected? The counterintuitive answer is yes: an energy emanation from the magnet known as the potential does indeed affect the electrons' wave function. This quantum-mechanical effect is being brought to bear on the development of new microelectronic devices.

Capt. Robert M. Collins (TQTR), "Soviet Research On The A-Vector Potential and Scalar Waves (U)," Unknown.

Abstract: Active in the areas of the Aharonov-Bohm effect as applied to the A-vector potential and scalar fields as applied to solving force related problems.

Capt. Robert M. Collins (TQTR), "Soviet Research On Unified Field Theories, False Vacuum States, and Antigravity (U)," Unknown.

Abstract: Theoretical progress in dealing with unified field theories...new concepts in weapons, transportation, propulsion

Dr. Jack Dea, "Fundamental Fields and Phase Information," P.A.C.E. Newsletter, vol. 4, no. 3 (Planetary Assoc. f. Clean Energy)

K.J. van Vlaenderen, "Electrodynamics with the scalar field," Sep. 2001.

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Although as much care as possible was taken in its reproduction, no warranty is expressed or implied as to the suitability or accuracy of this document for any purpose whatsoever.

CAVEAT: There are what appear to be errors in the original. Those that are changed are noted here. Spelling and other obvious errors remain as in the original.

On Page 346: The first double integral was missing the 'x' on the 'x sin u cos v' term of the first argument of f().

Frank Lofaro gives the 1903 paper this description: 1903 paper on potentials being composed of harmonic phase-conjugate scalar pairs.

He also gives the 1904 paper this description: 1904 paper on EM waves being composed of two scalars.

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Although as much care as possible was taken in its reproduction, no warranty is expressed or implied as to the suitability or accuracy of this document for any purpose whatsoever.

CAVEAT: There are what appear to be errors in the original. Those that are changed are noted here. Spelling and other obvious errors remain as in the original.

The equation in the middle of page 368 appears to be in error in the original. The "c-square, del-

square, $a \cdot y$ term is missing the superscript 2 on the δ in the original paper. From looking at the other equations in the group, it seems like it should be squared also.

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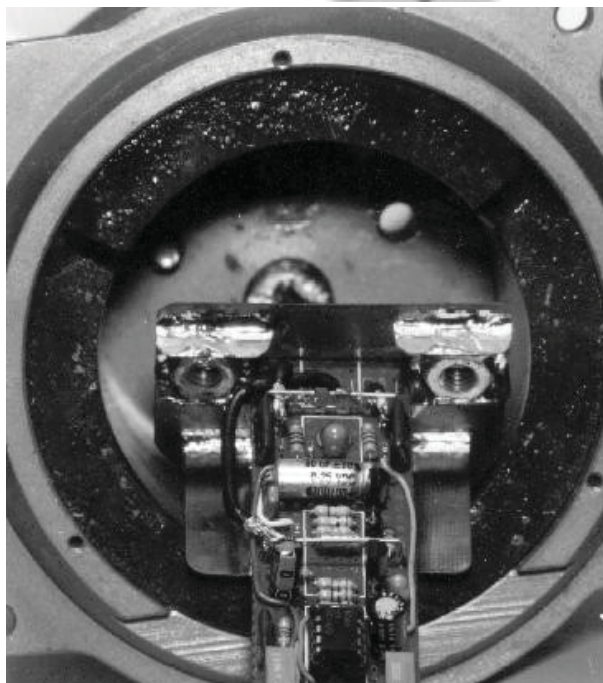
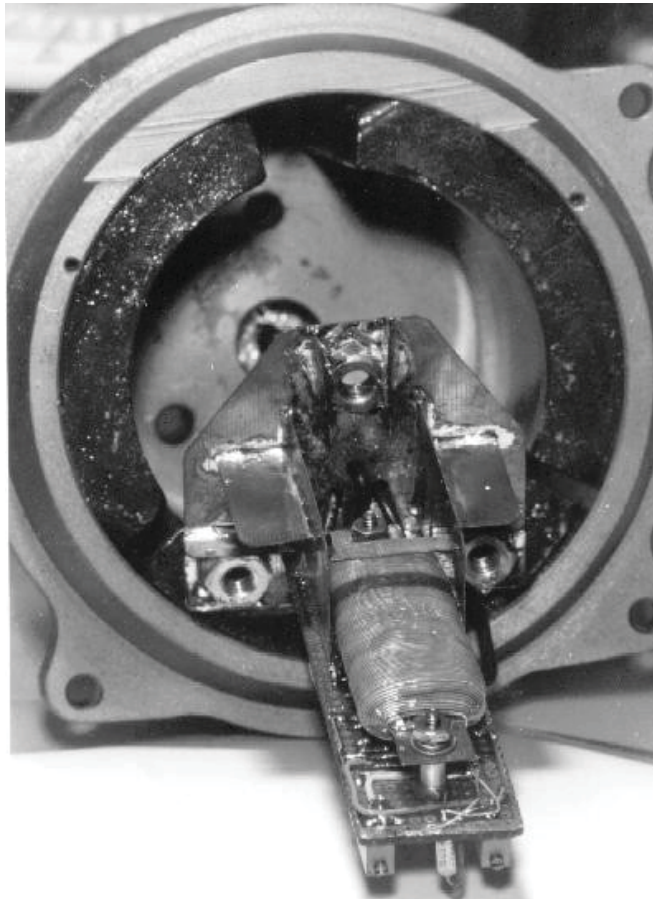
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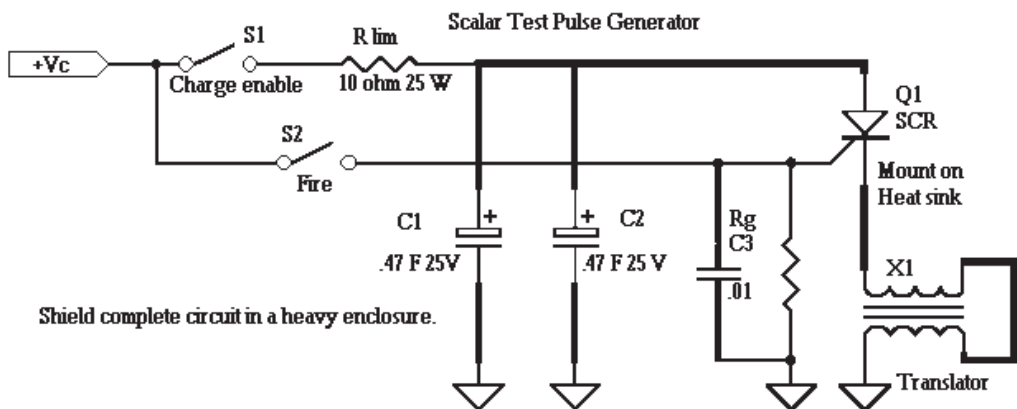
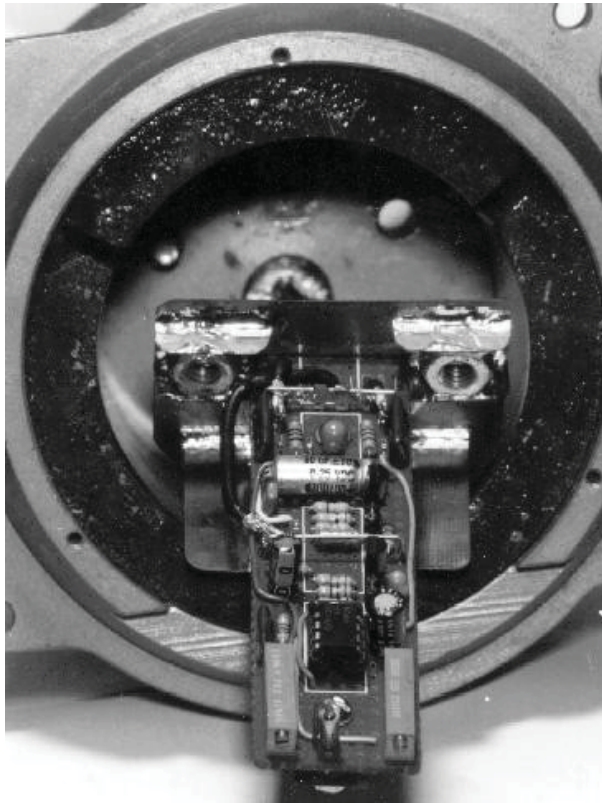
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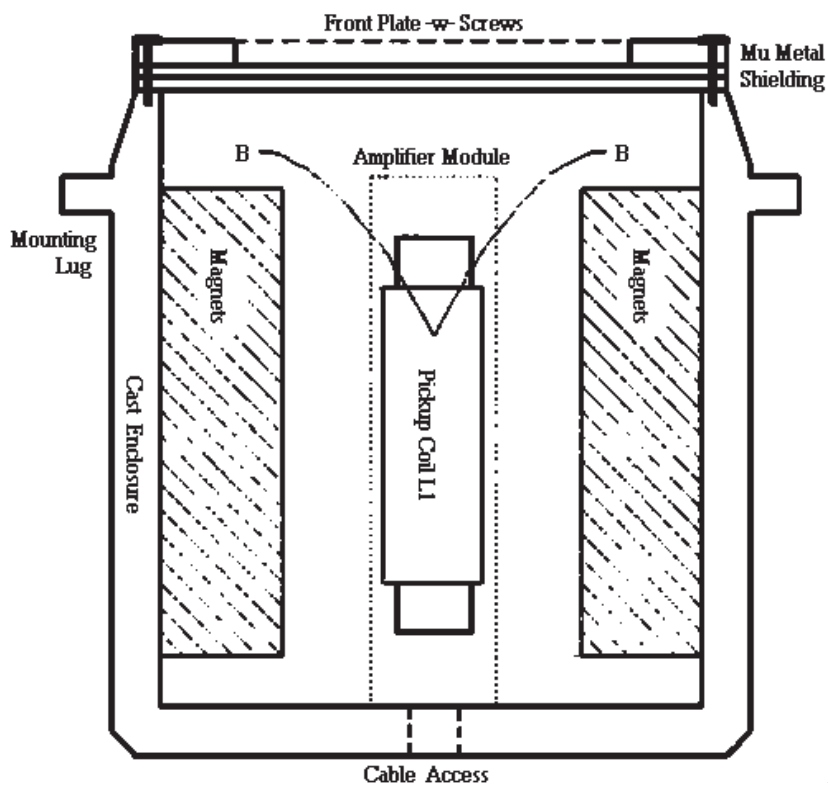
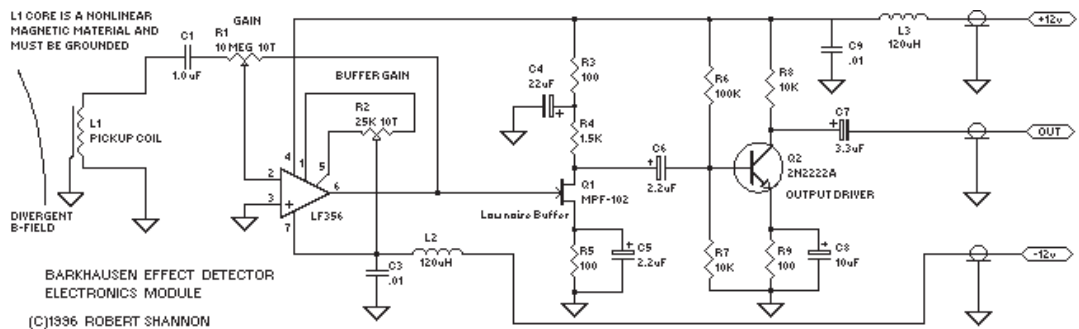
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Barkhausen Effect Scalar Detector



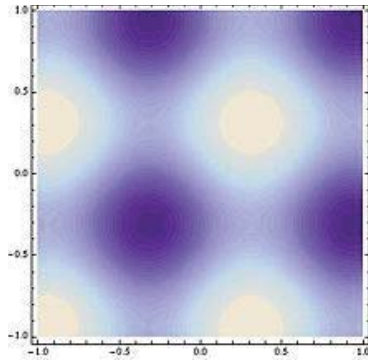




Scalar field

From Wikipedia, the free encyclopedia

Jump to: [navigation](#), [search](#)



A scalar field such as temperature or pressure, where intensity of the field is graphically represented by intensity of the color.

In [mathematics](#) and [physics](#), a **scalar field** associates a [scalar](#) value to every point in a space. The scalar may either be a [mathematical number](#), or a [physical quantity](#). Scalar fields are required to be coordinate-independent, meaning that any two observers using the same units will agree on the value of the scalar field at the same point in space (or spacetime). Examples used in physics include the [temperature](#) distribution throughout space, the [pressure](#) distribution in a fluid, and spin-zero quantum fields, such as the [Higgs field](#). These fields are the subject of [scalar field theory](#).

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Definition

Mathematically, a scalar field on a region U is a [real](#) or [complex-valued function](#) or [distribution](#) on U .^{[[1](#)][[2](#)]} The region U may be a set in some [Euclidean space](#), [Minkowski space](#), or more generally a subset of a [manifold](#), and it is typical in mathematics to impose further conditions on

the field, such that it be [continuous](#) or often [continuously differentiable](#) to some order. A scalar field is a [tensor field](#) of order zero,^[3] and the term "scalar field" may be used to distinguish a function of this kind with a more general tensor field, [density](#), or [differential form](#).

Physically, a scalar field is additionally distinguished by having [units of measurement](#) associated with it. In this context, a scalar field should also be independent of the coordinate system used to describe the physical system—that is, any two [observers](#) using the same units must agree on the numerical value of a scalar field at any given point of physical space. Scalar fields are contrasted with other physical quantities such as [vector fields](#), which associate a [vector](#) to every point of a region, as well as [tensor fields](#) and [spinor fields](#). More subtly, scalar fields are often contrasted with [pseudoscalar](#) fields.

Uses in physics

In physics, scalar fields often describe the [potential energy](#) associated with a particular [force](#). The force is a [vector field](#), which can be obtained as the [gradient](#) of the potential energy scalar field. Examples include:

- [Potential fields](#), such as the Newtonian [gravitational potential](#), or the [electric potential](#) in [electrostatics](#), are scalar fields which describe the more familiar forces.
- A [temperature](#), [humidity](#) or [pressure](#) field, such as those used in [meteorology](#).

Examples in quantum theory and relativity

- In [quantum field theory](#), a [scalar field](#) is associated with spin-0 particles. The scalar field may be real or complex valued. Complex scalar fields represent charged particles. These include the charged [Higgs field](#) of the [Standard Model](#), as well as the charged [gluon](#) mediating the [strong nuclear interaction](#).^[4]
- In the [Standard Model](#) of elementary particles, a scalar [Higgs field](#) is used to give the [leptons](#) and massive [vector bosons](#) their mass, via a combination of the [Yukawa interaction](#) and the [spontaneous symmetry breaking](#). This mechanism is known as the [Higgs mechanism](#).^[5] The [Higgs boson](#) is still the subject of searches at [particle accelerators](#).
- In [scalar theories of gravitation](#) scalar fields are used to describe the gravitational field.
- [scalar-tensor theories](#) represent the gravitational interaction through both a tensor and a scalar. Such attempts are for example the [Jordan theory](#) ^[6] as a generalization of the [Kaluza-Klein theory](#) and the [Brans-Dicke theory](#).^[7]
 - Scalar fields like the Higgs field can be found within scalar-tensor theories, using as scalar field the Higgs field of the [Standard Model](#),^{[8][9]} This field interacts gravitatively and [Yukawa](#)-like (short-ranged) with the particles that get mass through it.^[10]

- Scalar fields are found within superstring theories as [dilaton](#) fields, breaking the conformal symmetry of the string, though balancing the quantum anomalies of this tensor.^[11]
- Scalar fields are supposed to cause the accelerated expansion of the universe (inflation ^[12]), helping to solve the [horizon problem](#) and giving an hypothetical reason for the non-vanishing [cosmological constant](#) of cosmology. Massless (i.e. long-ranged) scalar fields in this context are known as [inflaton](#)s. Massive (i.e. short-ranged) scalar fields are proposed, too, using for example Higgs-like fields (e.g.^[13]).

Other kinds of fields

- [Vector fields](#), which associate a [vector](#) to every point in space. Some examples of [vector fields](#) include the [electromagnetic field](#) and the Newtonian gravitational field.
- [Tensor fields](#), which associate a [tensor](#) to every point in space. For example, in [general relativity](#) gravitation is associated with a tensor field (in particular, with the [Riemann curvature tensor](#)). In [Kaluza-Klein theory](#), spacetime is extended to five dimensions and its Riemann curvature tensor can be separated out into ordinary [four-dimensional](#) gravitation plus an extra set, which is equivalent to [Maxwell's equations](#) for the [electromagnetic field](#), plus an extra scalar field known as the "[dilaton](#)". The dilaton scalar is also found among the massless bosonic fields in [string theory](#).

See also

- [Scalar field theory](#)
- [Vector-valued function](#)

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Lawrence TSEUNG, *et al.* Leading Out Theory



www.zpenergy.org

January 24, 2007

China -A New Entry in the Magnetic Conversion of Zero Point Energy Has Surfaced!

The Wang Shum Ho Prototype Electricity Generator was reportedly demonstrated to five Chinese Officials on Jan 15, 2007.

Lawrence Tseung, a colleague of the inventor, has said the plan is to initially build four 5kW working units. One of these will be located in Beijing, another in Hong Kong and the third one at the United Nations in New York. The fourth unit is to serve as a portable demonstration device. All will be made available to universities for academic validation.

Then, 200 more will be produced. They intend to present one of these to each member country of the United Nations, as a gift from China. Mass production may begin in 2008.

Tseung has written: "Devices of this nature are converting the electromagnetic wave energy that surrounds us all the time. Some call this Zero Point Energy. That energy is due to the rotational motion of the electrons. Unless the electrons stop spinning and fall into the nucleus, that electromagnetic energy exists."

Tseung states: "The World Energy Crisis is effectively over."

TSEUNG Lawrence Chun Ning
Email: ltseung@hotmail.com

"We are actually immersed in electromagnetic waves. When electrons rotating around the nucleus change orbits, they give rise to electromagnetic waves. Light is only one form of electromagnetic waves. We emit and receive electromagnetic waves all the time. Unless the electrons stop rotating and fall into the nuclei, there will be electromagnetic waves. Thus we are never in a CLOSED system. We are always in an OPEN system with energy interchanges. For example, we were in calm waters and good sunshine. If we did not know how to use solar panels, we might conclude that we were in a CLOSED system. We should use our muscle power to row the boat. The Lee-Tseung Patent information (PCT/IB2005/000138) states that Energy can be extracted (Lead Out, Lead Out, and Lead Out with Pulse Force) from Energy Fields via oscillation, vibration, rotation or flux changes. Energy Fields can be gravitational, magnetic, electric or electromagnetic."

See also:

<http://www.youtube.com/user/ltseung888>
<http://www.youtube.com/watch?v=gxnHJoyrQpM>

Energy can be extracted from a falling weight which reloads itself in a waterfilled tube. Weight with density 0.6 drops down to generate electricity. Floats up via two doors to trap water in tube.



http://www.steorn.net/forum/comments.php?DiscussionID=24003&page=1#Item_0

Author Itseung888

Comment Time Sep 16th 2006

If you had followed the various threads or read the information from the main website (<http://www.energyfromair.com>), you might have learned that we already signed a contract with a Chinese Government Concern. The contract essentially says that if our prototypes passed the certification process at Tsing Hua University, we could lay our hands on RMB\$300 million (US\$33m) development funds. (<http://www.energyfromair.com/beijing/letteritseung.doc>)

We intend to benefit the entire world. The main Patent Holding Company in China will be 51% owned by the Chinese People and Government. There will be a subsidiary patent holding company in every country which will be 51% owned by its People. The Cosmic Energy Products sold in country A will pay royalty to the patent holding company in country A. Thus every country and citizen will benefit.

There will be product companies that will be licensed to produce specific products. These products have not been announced yet as the types of products are in the thousands. It is possible for you and your group to participate in the licensing of producing these products. However, we are in no hurry to enter into a deal as almost all our prototypes are not ready to be sold as a product. In addition, if we sell a product as an electricity generator, we have to pass a 6 month no failure test in China.

However, we are interested in World Publicity right now. Discussion of a license and an offer will stimulate additional interest. Whether the deal actually materialize is not that important to me at present. Lee Cheung Kin, myself and the key inventors (60 in China) are almost guaranteed to be multi-millionaires already.

A wise Chinese Monk in Taiwan told me - just think about contributing to the World. Ignore your personal fame, wealth, ego, etc. The venture will succeed. Angels will come down to help you.

<http://www.google.com.hk/search?hl=zh-TW&q=Lawrence+Tseung&btnG=Google+%E6%90%9C%E5%B0%8B&meta=>

- (1) Participant at Hong Kong Government Forum
- (2) Cosmic Energy
- (3) Guaranteed Reliable Broadcast Network (together with Dr. Yu at MIT)

Holder of two US patents:

5,109,384 Guaranteed reliable broadcast network
5,036,518 Guaranteed reliable broadcast network

Cosmic Energy Plan

by

Lawrence Tseung

(Jan 18, 2007)

(1) The Theory is now completed. The emphasis is on - all objects are immersed in Electromagnetic Waves. They are interchanging EM with surroundings constantly. They are not in closed energy systems. The analogy is - boat in calm water and good sunshine. This theory will be circulated to all Universities, Colleges and other Academic Institutions. Some top physicists will take it up and publish it in top scientific journals. Textbooks will be re-written.

(2) My focus will be on the Patent Information. The promoting of the Lead Out concept will continue. Energy can be extracted (Lead Out, Lead Out and Lead Out with Pulse) from Energy Fields via Oscillation, Vibration, Rotation or Flux Changes. Energy Fields include gravity, magnetic, electric, electromagnetic fields. Energy from Still Air is an indirect way of using Gravitational Energy. The Patent Offices around the World will have no choice but change their policy on Perpetual Motion Machines and the use of the Law of Conservation of Energy as the Roadblock to inventions.

(3) The Experimental prototypes that can be implemented readily include the Energy From Air systems, the simple Gravity Wheel (Bessler Wheel), the Wang Shum Ho Wheel, the Steorn Toy and the Pulse Machine. The details will be fully published. They are the spearhead of the Cosmic Energy Development but are very primitive from the theoretical point of view. They will have very short commercial success even if introduced into the Market Place. Steorn has generously announced their licensing plans. We shall follow that generosity to benefit the entire Human Race.

(4) The Wang Shum Ho 5KW Electricity Generator has been assembled and demonstrated in front of 5 Chinese Officials. The chance of having 4 prototypes ready for academic tests; 200 as gifts to every nation and then producing products (including a DIY version) is good. The product is likely to be introduced via the United Nations. Even the most undeveloped Country will have working products to learn from and to adopt the technology. We shall ensure that multiple groups can produce the device. We would like to introduce the concept of Mutual Credits to ensure an orderly creation and distribution of this technology and the generated new wealth.

(5) The further technical developments include the Flying Saucer, the non-rotating 4th generation machines and the 5th generation IC machines. This is likely to include an International Alternative Energy Conference chaired by Steorn after their successful validation. They already have a group of top scientists from different parts of the World validating their device. Hopefully, the Conference will be an International Cooperation Event. We are confident that the 6th, 7th generation machines will come out in the foreseeable future. The World Energy Crisis is effectively over.

(6) There will be development of Model Farms, Model Villages, Model Cities, etc. Multiple Models will be built. This will greatly speed up the development of less wealthy Countries. Cities in the sky or cities under the sea will no longer be fiction. People will have Flying Saucers as personal transport complete with office, communication, health, entertainment devices, etc. Country borders will be blurred. Central authority would be replaced by Central guidance.

(7) Like it or not, there will be military development of this technology. With this technology, the troops would never run out of fuel, food, ammunition, etc. They can fly anywhere including outer space. All existing planes, missiles, submarines, tanks will be obsolete. We hope to make all these developments open so that no single Nation can dominate. If there is military balance and fear of retaliation resulting in destruction of Planet Earth, there might be less temptation to start wars. This technology will allow a small nation to have vast destructive powers. The possibility of the Doomsday Bomb with matter and anti-matter would be obvious to any physicist.

(8) We shall openly discuss and promote the new order. Nationalism will slowly be replaced by Internationalism. The less developed Countries will catch up quickly as copying is always faster than inventing. There will be enormous new wealth generated especially if concepts such as Mutual Credits and Meaningful Economic Activities are adopted. Such new wealth will be available to and will benefit all. There is no need to rob other Nation's land, oil or resources. Competition will be friendly and non-destructive.

The end for now.

Lawrence Tseung

As we discussed previously, the overall situation is as follows:

(1) The Chinese Government will NOT allow the development of military products by a Commercial Company in China. They will do it themselves with no information revealed to the General Public. (I believe almost all Countries have similar policy.)

(2) However, they are aware of the theory, the patents and the prototypes from us. They also bought some EBM units from Hungary. This means some decision makers are willing to risk some money and time to seriously investigate these Over Unity Devices. We believe we may be able to develop non-military products with their blessing.

(3) As in all Countries, not all Officials are of one mind. Some Officials in China are still doubtful. One who sat on and drove the Dr. Liang car said to me, "I cannot get myself to believe this Over Unity Device. Energy must come from somewhere. It cannot be created nor destroyed." I tried to explain our theory from the simple pendulum with the pulse force. He said, "I know how a pendulum works. All the energy comes from your push. That is a fact. I want no more of this nonsense."

(4) While the Chinese Officials are in the debate, we charge ahead with the limited resource we have. This forum helped me to consolidate my ideas and presentations. If I had thought of the boat in calm waters and good sunshine when I was talking to that Official, the outcome might have been different.

(5) I found that the most convincing presentation is to start with the boat in calm waters and good sunshine. Thus my updated presentation has it. See
<http://www.energyfromair.com/beijing/taiwan2a.htm>

Lawrence Tseung

This patent is not apparently related to the ZPE Converter...

WO 2006/077451

Lawrence TSEUNG; Cheung LEE

Extracting Energy from Gravity

(2006-07-27)

Classification: - international: H02N11/00; H02N11/00;- European: H02K53/00

Application number: WO2005IB00138 20050120

Priority number(s): WO2005IB00138 20050120

Abstract --- The invention extracts energy from gravity based on the corrected theory of the pendulum. When the pendulum is pushed, it will 'lead out' gravitational energy at the same time. If a source of pulse force (F) is applied to the pendulum at resonance, it will keep 'lead out' gravitational energy. This gravitational energy can be extracted by techniques such as allowing the metallic wired pendulum to cut across the lines of magnetic force to generate electricity. The swinging motion of the pendulum will be slowed down because the mechanical energy is converted to electrical energy. However, such slowing down is speed up via pulse force (F). The swinging motion can be changed into a constant rotational motion for more efficient operation.

Fig. 1

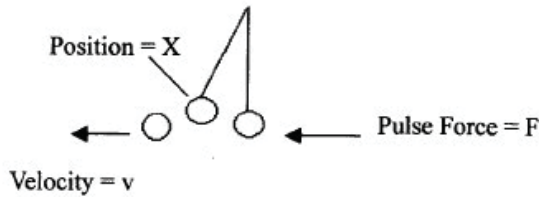
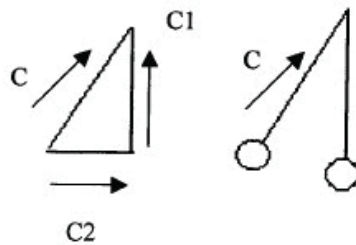


Fig. 2



1. Technical Field

This invention is related to the extraction of energy from gravity. Such energy is virtually limitless and is available everywhere including on the moon.

2. Background Art

Mankind has played with the swing for centuries. They do not realize that when they push the swing, they get Energy from Gravity at the same time. Many people, especially little boys, have deliberately allowed the swing (or the punch bag) to knock them after pushing the swing a couple of times. They all suspected that the force knocking them was much more than the energy they supplied in the couple of pushes.

However, the existing textbooks do not consider the Energy from Gravity term and attribute the force to resonance only. They assume that all the energy must come from the couple of pushes. This misunderstanding has prevented scientists and engineers to design methods or devices that

Extract Energy from Gravity for centuries. However, they did not have the theoretical basis to justify their inventions. Many of these inventions were classified as impossible perpetual motion machines and were rejected by scientists and many Patent Offices worldwide.

3. Disclosure of Invention

The theoretical breakthrough needed is the understanding and the deriving of the underlying formulae related to the swing or the pendulum systems.

The steps involved in extracting Energy from Gravity are:

1. Push the pendulum with a Pulse Force at resonance.
2. The swinging of the pendulum will 'lead out' the Gravitational Force.
3. Some of the commercially available swinging toys already use an integrated circuit to provide the Pulse Force. The swinging toys can use batteries or photoelectric cells.
4. If the string of the swinging toy or pendulum is replaced by a copper wire and placed between two magnets, the copper wire will cut the magnetic lines of force and generate electricity. The swinging motion will be slowed down --- kinetic energy turning into electrical energy.
5. If the swinging motion is speeded up again via the pulse force, we can repeat step 4 and get a primitive Electricity Generator that extracts energy from Gravity.

Mathematics behind Extracting Energy from Gravity

Let us consider the situation of a ball suspended by a string (pendulum) in Figure 1. In Figure 1, a small 'pulse force' F is applied to the ball (mass – M) with a displacement d .

The physical laws demand that there should be an acceleration equal to A where $F = MA$. The energy imparted will be equal to Force multiplied by Displacement (Fd). The final velocity acquired should be v (where v is determined by the energy equation $Fd = 1/2 Mv^2$). If there were no string, no friction, no gravity, no air resistance, etc., the ball should acquire the velocity v and continue along a straight line forever.

With the presence of the string and Gravity, the ball acquires the position X in Figure 1.

In Figure 2, we view the situation using the concept of circular motion. The ball is moved up and to the left because of the centripetal force C . We can treat the centripetal force C as made up of two components:

1. Component C_1 is the vertical direction. It acts against gravity and lifts the ball upwards. Work is done and energy is spent.

2. Component C2 is in the horizontal direction opposite to the motion of the ball. It acts on the ball and slows it down until the velocity is zero. Work is done and energy is spent.

C1 can be thought of as contributing to the work done by the string to lift the ball against gravity. In other words, this energy is the non-obvious Energy from Gravity. Once we start or push the pendulum, work will be done against gravity by the string. This energy must be conserved.

Here are effectively two energy components acting on the system. One is the pulse energy supplied to start or maintain motion. The other is the energy supplied by the string to lift the ball against gravity! This means we 'lead' the gravitational energy into the system when we push or swing the pendulum!

The correct energy relationship of the pendulum (assume no energy loss) should be:

Energy In = Energy Out

Energy In = Energy from Pulse + Energy from Gravity

Energy Out = Potential Energy (MGH) + Kinetic Energy ($\frac{1}{2} Mv^2$)

Previously, scientists did not take into account the Energy from gravity term and thought that all the energy must come from Energy from Pulse! Thus they did not tell the engineers to design systems to extract Energy from Gravity directly. The above simple theoretical correction will lead to many devices that extract Energy from Gravity directly. We shall disclose 3 sample embodiments in this application. Dozens or more along the same line are possible.

Embodiment 1: Use of the Simple Pendulum

Use a copper wire to suspend the pendulum. Put the pendulum in between two magnets and let the swinging motion cut the magnetic field. Use the generated electricity to do work and to supply the periodic horizontal pulse energy. This is the simplest and the most obvious solution. However, the electrical current generated will vary from zero to a certain maximum and will change direction. Sophisticated integrated circuit control is needed to provide a smooth, practical electricity generator. If the purpose is just to demonstrate the principle such as lighting a light bulb, it may be good enough.

Embodiment 2: Use a Constant Speed Rotating Wheel

Conceptually, we can spring the pendulum in a complete circle without violating the theory. In practice, we replace the pendulum with metallic rods arranged in the form of a wheel. The generating of electric current will slow down the motion of the rotating wheel but the pulse circuits will 'lead out' additional gravitational energy to accelerate the motion. If properly controlled, the rotational speed can be kept constant and the generation of Electric Current will be steady and in one direction only. This effectively is a Direct Current Electricity Generator. The secret of success lies in the positioning and control of the various magnets or pulse circuits. The energy extracted from gravity per revolution can be as much as $2MGR$ where R is the length of the pendulum string (or radius of the wheel in this embodiment). This value may be less if

some of the pulse circuits supply the vertical force/energy. However, so long as gravitational energy enters into the system, we get free Energy from Gravity.

Embodiment 3: Use of Water in a Double Wheel

We can also use water in a vertical spinning double wheel to extract Energy from Gravity. If there were no gravity, the water should be uniformly distributed at the outer side of the wheel. However, because of gravity, the distribution of water will not be uniform. There will be a wider path at the up moving side and a narrower path at the down moving side (This is because water travels slower on the up moving side because of gravity). We can use a central shaft with fins to extract energy from the up moving water or we can use an off center shaft with fins to extract energy from the down moving water.

4. Brief Description of Drawings

Figure 1 shows the operation of the simple pendulum. A short duration Pulse Force F is applied to push the ball (Mass = M) for a short distance d . If there were no string, no air resistance and no gravity, the ball should accelerate with acceleration A ($F = MA$) until a velocity v ($Fd = 1/2 Mc^2$) is reached. The ball should then move along a straight line with velocity v forever according to Newton's Laws of Motion. However, with the presence of the string and gravity, the ball moves to position X .

Figure 2 shows the resolution of the Centripetal Force C into two components $C1$ and $C2$. $C1$ lifts the ball up against gravity and does work. The resulting energy goes into the pendulum system. This is the Energy from Gravity. $C2$ is in the opposite direction of the pulse force F and does work in slowing the ball from velocity v to zero. $C1$ can be much greater than $C2$ as judged by the parallelogram of forces. This means that if we want to get more Energy from Gravity, we should apply small but more often the Pulse Force F .

5. Best Modes of Carrying Out the Invention

The best mode of carrying out the invention is embodiment 2 (use of a constant speed rotating wheel) as described in Section 3. If the invention were used to generate electricity only, we can draw electrical energy out directly by placing the rotating wheel in a magnetic field. The rotating mechanical energy will be converted into electrical energy directly. The rotating speed will decrease but the pulse circuits will 'lead out' more gravitational energy to replenish the speed. If more electricity is required, we can increase the rotating speed or increase the number of pulses per revolution.

6. Prior Art or Patents

We are aware that many scientists are working in the energy field. Some of them are also using Energy from gravity. One known patent from China is 02113293.3 granted on August 13, 2003. This patent uses the vibration energy when a vehicle travels over an uneven ground to generate electricity. It can supplement or recover some of the lost energy from an electric car but cannot be the prime source of its energy. Our theory can be applied to swinging resonance systems as

well as to vibrating resonance systems. Our invention is superior because we can be the prime source of energy of the electric car.

Another known patent from China is 01123526.8 granted on March 5, 2003. This patent uses a rotating cylinder and extracts the gravitational energy from the central shaft to drive a car. It describes one very good mode of operation (Thus we leave out this mode of operation --- the use of the central shaft in our claims). However, the inventor did not fully understand the theory. In his marketing literature, he explained his understanding of the phenomenon using a mixture of Chinese philosophy, Western science, and mysterious cosmic forces. He did not realize that the theory was a simple 'leading out' of the gravitational force from the swinging motion of a pendulum.

In our explanation of the corrected theory of the pendulum, we have effectively removed the mysterious source of energy in the prior art. The same theory can be used to explain the extraction of energy from magnetic fields, etc.

Cosmic Energy Electricity Generators

China Venture Capital Forum 2006

by

Lawrence TSEUNG

The World Energy Crisis is over. Oil is no longer a strategic resource. There is no need to go to war over it.

Modern Wealth is the quality and quantity of Meaningful Economic Activities. Such Activities can be infinite.

Ignorance and poverty will be history.

Contact: Mr. Stephen Chan (852) 9184 4277

China Venture Capital Research Institute (Hong Kong) for Investment Details.

Title:

Introduction to Cosmic Energy Machines

by

Lawrence C. N. TSEUNG

For: China Venture Capital Forum 2006

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4.5 Fifth Generation (Improving the Third Generation over 100 times)

5. Summary

1. Open Letter to the Chinese Government*

Dear Sirs,

I have done a great deal of research into the field of Cosmic Energies and I am convinced that their use will solve the Energy Crisis. Cosmic Energies include air, water, gravitational, magnetic, electric fields and others. Such energy sources are non-polluting, abundant and inexpensive.

I, together with Mr. Lee Cheung Kin and others, have applied for Patents in this field. For example, the PCT patent application (PCT/IB05/00138) titled "Extracting Energy from Gravity" and the equivalent China Patent Application passed the preliminary examinations. Some experiments that can be performed by the average secondary school student are ready. These experiments conclusively demonstrate that we can extract energy from the pendulum systems. Some Chinese Inventors developed working cosmic energy machine models before our theory was out. Unfortunately, without the solid, theoretical explanations, many working inventions were classified as impossible perpetual motion machines. These should be rescued. With the right resources and proper development, China can solve the World Energy Crisis, solve the poverty problem of its Farmers, generate phenomenal Modern Wealth and lead the World into the Wisdom Society.

The difficulties we are facing include objections from established interests, lack of Government support, lack of funds and resources. There are disputes amongst the researchers on when would be the proper time to inform the Government and the General Public. As requested, I am presenting my personal opinion here.

Lawrence Tseung in Hong Kong

March 18, 2006

2. The Development History of the Cosmic Energy Inventions

My development started from an experiment on Fluid Mechanics in May 2004 at the Tai Po office of Mr. Peter Chan. Mr. Henry Ku and I were performing an experiment to compare the characteristics of water under push and pull conditions. Some air accidentally leaked into the apparatus. Water and air bubbles spurted out from the testing tubes for over 20 minutes. It was obvious to us that such an effect could not be attributed to the difference in density columns alone. We then started the research on the characteristics of air and water column mixtures.

Mr. Peter Chan introduced us to his friend Mr. Kwan who wrote a book on Perpetual Motion Machines. In the book, Mr. Kwan described a pump as a proof. I read the book cover to cover 7 times and concluded that the most valuable statement in the whole book was: §The resulting water contained much oxygen and is suitable for fish farming. The pump was not a Perpetual Motion Machine but a device that used the Energy from Still Air similar to the Ku experiment mentioned above.

I worked out the formula to explain the process. Air is not a fuel but an energy carrier. The energy carried by air into a system can be different from the energy carried out by air from the system. The formula is

Energy carried In by air = Pressure In x Volume In

Energy carried Out by air = Pressure Out x Volume Out

The difference can be used to generate electricity.

I then used two simple beach pumps and some one-way valves to demonstrate the theory. My friends, the Cheungs, set up the demonstration system at Tai Po. Mr. Lee Cheung Kin, a retired engineer with missile training from China saw the demonstration and agreed with the theory. Mr. Lee also mentioned a car from Dr. Liang that required no fuel and obtained a video (included on the CD) and the marketing literature. In the marketing literature, Dr. Liang used a mixture of Chinese philosophy of Yin-Yang and Western Ideas to explain why the car required no fuel.

Mr. Lee and I laughed at the explanation and decided to seek new explanations. The next morning, Mr. Lee woke me up at 7:30am from the Hotel and asked me to rush over. Mr. Lee showed me a pendulum toy and his theory. (That early theory was later corrected.). Mr. Lee also

introduced Professor Woo, a retired scientist who helped to develop the first Chinese Atomic Bomb. Professor Woo met Dr. Liang personally and was confident that the car did work. We then seek the help of the Hong Kong Invention Association and had the first Press Announcement on Dec 20, 2004 at Tai Po.

The night before the Press Announcement, a Chinese Foreign Trade Official, Mr. Au Yang, showed a CD from another Inventor, Mr. Sung Tim Fat. Mr. Sung provided an early version of his Invention to Dr. Liang. The invention was an electricity generator that required no fuel. Mr. Sung thought that the energy came from the permanent magnets. He could not explain why that creation or replenishing the magnets used x units of energy. The machine could then generate much more than x units of energy.

It was clear to me that the above inventors did not have a correct theory. I continued to work on the theory. The theory was expanded from Oscillation Systems to Rotational Systems; from Gravitational to Magnetic Fields; from Rotations to Vibrations; from Vibrations to Flux Changes etc. The latest is the fifth generation.

Another major theoretical breakthrough is on the understanding of magnetism. I can now explain why that a permanent magnet can help to generate much more energy than that to create it. Magnetic field is caused by the motion of electrons. The permanent magnet is not the source of energy. It induces changes in the motion of the electrons $\downarrow$ changing their orbits and hence energy levels. There can be energy exchanges with the surroundings. The energy comes from rearrangement of the orbits of the electrons and exchanges with the surrounding such as light, heat, etc. There is also evidence that magnetic fields can affect the half-life of some radioactive elements. This means nuclear forces may even be possible.

I asked a 13 year old student, Miss Wini Woo to help me with the PowerPoint file. Miss Woo did a great job and also informed me that she could produce a flying machine using the theory of equivalent gravitational constant described. (That will be the subject of another report.)

Mr. Raymond Ting joined us in January 2006. Within a few weeks, he completed many demonstration experiments on the Woo flying machine. To his credit, he also designed simple experiments on the pendulum systems that conclusively demonstrated that pulse forces could $\downarrow$ lead out $\downarrow$ gravitational energy.

My plan is to inform the Central Chinese Government as quickly as possible.

3. The Indirect use of Gravitational Energy (Still Air etc.)*

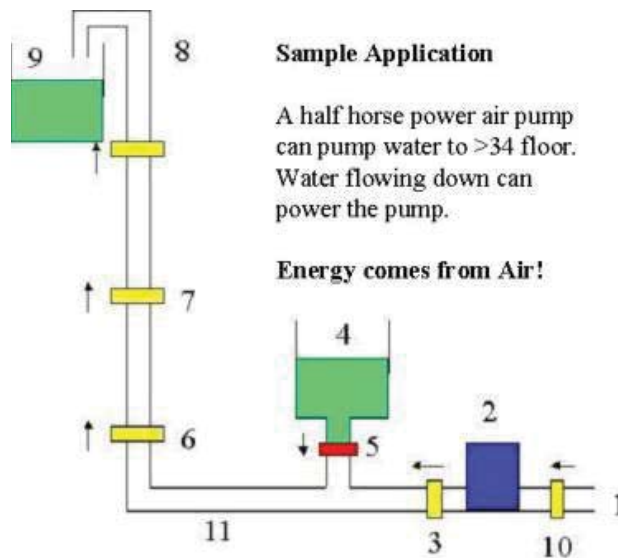
The first demonstrable use of Energy from Still Air from me was in June 2004. I applied for the PCT patent in July. The theory is as follows:

1. Air can be brought into the System carrying in energy E_{in}
2. Air can be carried from the System carrying out energy E_{out}

3. Energy E_{in} can be greater than Energy E_{out}
4. The difference is Energy supplied by Air
5. The carried out Air can expand and absorb energy back from the atmosphere causing global cooling (reversing the effect of global warming).

The practical demonstration of the invention is shown in figure 3.1

Figure 3.1 Sample Application of Energy from Still Air



In Figure 3.1, 2 shows a HK\$300 electric air pump; 4 is the lower water tank; 9 is the upper water tank; 3,5,6,7,8,10 are one-way valves. The water and air mixture is sent to the upper water tank 9. The mixture is separated. The total energy input is that from the air pump + energy from air E_{in} . Many engineers and scientists previously ignored E_{in} . Professor Woo and many members of the Chinese Academy of Science accepted this correction.

The next invention was the "Lightning in a Box" by Mr. Chan, Mr. Kwok and Mr. Bill Fong. The invention uses the energy of the ions and/or electrostatic charges in the air. As we all know, lightning has much energy. Lightning is caused by the meeting of two clouds, one carrying positive charge, the other carrying negative charge or via their finding a path to discharge via the Earth. The invention uses such energy and is shown in Figure 3.2 and Figure 3.3

Figure 3.2 Invention Flow Diagram

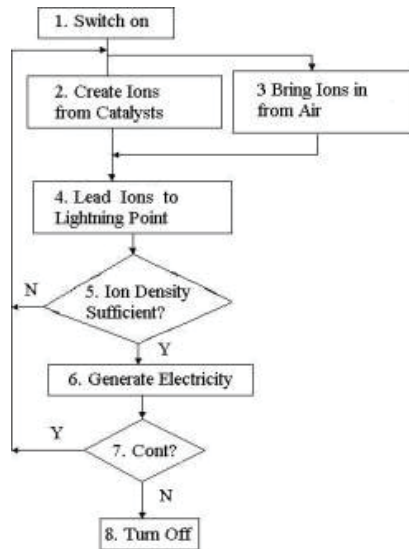
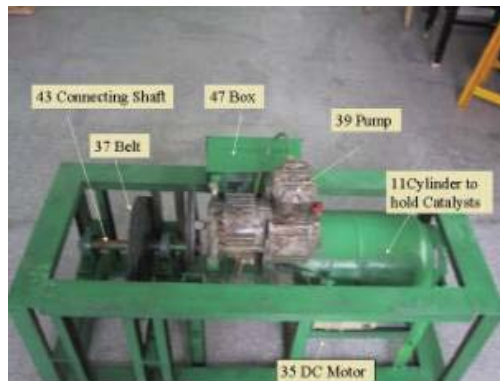


Figure 3.3 Invention Diagram



The above invention was first demonstrated in April 2005 in Shenzhen. Many improved versions have been developed. The latest models are ready for production. The inventors are seeking Venture Capital.

Other inventions include the use of floatation. One technique allows an object of density 0.6 to drop down to generate electricity and then float back up a tube with two control doors at the top and bottom (video available on the CD - AVSEQ03.DAT). Another technique allows hollow balls to float up and turn a vertical chain with flaps to generate electricity.

4.0 The Direct use of Gravitational and Magnetic Energy

Previously, scientists did not realize that they could continuously extract Energy from Gravity. In particular, they did not realize that the swing or the pendulum system could lead out Gravitational Energy. The mathematics is based on the Parallelogram of Forces studied in Physics by every secondary school student.

The basic steps in Extracting Energy from Gravity are:

1. Push the Pendulum with pulse forces at the right time (more scientifically, at resonance)
2. The Pendulum System will lead out gravitational energy due to such pulse forces.
3. Many commercial swinging toys already use such pulse force mechanisms. Many of these toys use Integrated Circuit or Intelligent Chip techniques.
4. If the swinging arm of such a toy were replaced by a copper wire and the copper wire were placed in between the two poles of a permanent magnet, the swinging motion will generate electricity.
5. The swinging motion would slow down as the kinetic energy was converted into electrical energy. However, the pulse force and the additional gravitational force would accelerate it again.

The pendulum system with pulse force mechanism can thus "lead out" gravitational energy and become the most primitive form of Energy from Gravity Machines. The experiments designed by Mr. Raymond Ting illustrated this concept conclusively. Figures 4.1 and 4.2 show the details.

Figure 4.1 shows a pendulum system.



The pendulum is first balanced by a weight of 367 gms. There was no motion. A Pulse Force of 50 gms was then added. The pendulum went up with an increase in Potential Energy of $367 \times H$.

However, the Energy supplied by the 50gms "Pulse Force" was only $50 \times H$.

(One Time Lead Out of more Energy)

Previously, scientists did not realize that they could continuously extract Energy from Gravity. In particular, they did not realize that the swing or the pendulum system could lead out Gravitational Energy. The mathematics turned out to be very simple and should have been derivable by every secondary school student.

The basic steps in Extracting Energy from Gravity are:

1. Push the Pendulum with pulse forces at the right time (more scientifically, at resonance)
2. The Pendulum System will "lead out" gravitational energy due to such pulse forces (The basic theory will be covered in the next section).
3. Many commercial swinging toys already use such pulse force mechanisms. Many of these toys use Integrated Circuit techniques.
4. If the swinging arm of such a toy were replaced by a copper wire and the copper wire were placed in between the two poles of a permanent magnet, the swinging motion will generate electricity.
5. The swinging motion would slow down as the kinetic energy was converted into electrical energy. However, the pulse force and the "led out" additional gravitational force would accelerate it again.

The pendulum system with pulse force mechanism can thus "lead out" gravitational energy and provide the most primitive form of Energy from Gravity machines. However, we can easily improve the pendulum system to rotating systems with drastically improved efficiency. Electricity Generators that can generate over 20,000 watts and cars that can achieve speed of over 220 km/hr have been produced and demonstrated. The inventors did not understand the theory at that time. The inventions were labeled as impossible perpetual machines. The inventor of the car marketed the car as a perpetual motion car. Many eyewitnesses even thought that the demonstrations were frauds to fool potential investors.

Joseph Newman also demonstrated a similar device in USA on March 28, 2005. The event was shown on World Television including the Disney Discovery Channel. Mr. Newman did not understand the true theory and spent over forty years trying to find the best device.

The theory is explained here. Patents have already been filed. A Company in Shenzhen will produce the working electricity generators for factories, villages, and homes etc. within the coming months.

The same theory can be applied to magnetic objects swinging or rotating in magnetic fields. The vehicles utilizing such engines need no fuel and could function even on the Moon and in Outer Space. The invention is likely to change the concept of space travel.

THE BASIC THEORY

The basic theory should have been derivable by every secondary school student who studied Physics. Fig. 1 re-explains Newton's First Law of Motion. If the Ball is pushed with a Pulse Force F for a displacement d , it will acquire a velocity v . If there were no string and no gravity, the Ball would move in a straight line with velocity v forever. With the presence of the string but no gravity, the Ball would move in a circle similar to the Earth moving around the Sun. With the presence of the string and gravity, the Ball would acquire the familiar swinging motion.

Figure 4.2 shows a nearly balanced position.

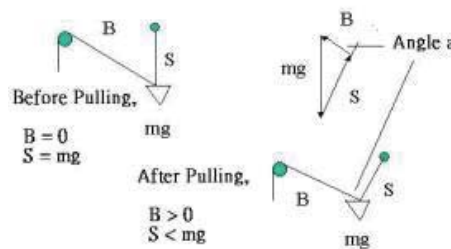


The pendulum was pulled close to the middle position. In this position, half of the force is from the tension of the String S and half is from the Pulse Force B .

The tension of the String can be attributed to Gravity. This shows:

Continuous Lead Out of Gravitational Energy by the Pulse Force B

Figure 4.2a Parallelogram of Forces.



This is the most important theoretical diagram. It uses the Parallelogram of Forces taught in all secondary schools around the World. I simply applied it to the Pendulum after learning it 50 years ago!

In Figure 4.2a, the force and energy imparted by the Pulse Force B and the String S are analyzed

by decomposing them into the vertical and horizontal components.

B Force (horizontal) = S Force(horizontal) but in opposite direction

B Force (vertical) + S Force(vertical) = mg

B Energy (horizontal) = B Force(horizontal) x horizontal displacement

S Energy (horizontal) = S Force(horizontal) x 0

(displacement not in direction of force but energy is stored iV ready to be used on swinging back)

B Energy(vertical) = B Force(vertical) x vertical displacement
(* height raised)

S Energy(vertical) = S Force(vertical) x vertical displacement
(* height raised)

Since S Force(vertical) can be much higher than B Force(vertical), a small Pulse Force can Lead Out a large quantity of Gravitational Energy, Thus the theory can be proved mathematically and verified experimentally.

Once we understand that the Pendulum System with Pulse Force can Lead Out gravitational energy, we can easily extend that to rotational systems. The following Figures 4.3 to 4.6 illustrate this very well.

Pulse Force

Figure 4.3 shows the pendulum system with a Pulse Force.

From the previous Figures 4.1, 4.2 and the descriptions, we know that the pendulum system with Pulse Force can Lead Out gravitational energy.

Speeds up due to gravity

Slows down

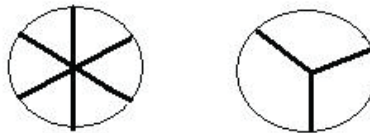
Figure 4.4 shows the swing of the pendulum extended to 360 degrees.

Instead of the oscillation motion, we now have a circular motion. However, the same theory of Extracting Energy from Gravity via Pulse Force is still valid. The Pulse Force needs to be stronger.

Figure 4.5 shows replacing the string with a rod type setup.

The oscillation is now around the center of the rod. The same theory of Extracting Gravitational Energy via Pulse Force is still valid.

Figure 4.6 shows a complete wheel replacing the simple pendulum.



A complete wheel with spoke setup can totally replace the pendulum system to extract Gravitational Energy with Pulse Force. This setup is much more efficient as the wheel can rotate at a high speed.

The use of the Wheel or Cylinder type setup is much more efficient than the simple pendulum. The energy that can be extracted per revolution is $2mgr$ where m is the mass of the wheel (if all the mass were at the rim), g is the gravitational constant and r is the radius of the Wheel.

4.1 First Generation (Extract Energy via cutting Earth's Magnetic Field)

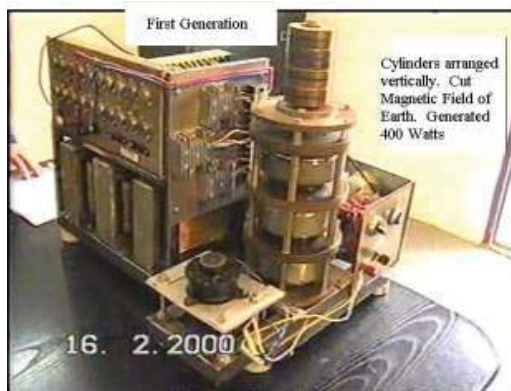
The First Generation Cosmic Energy Electricity Generator was the machine from Mr. Sung Tim Fat. It consisted of 3 cylinders spinning with the axis in the vertical direction. Each cylinder has magnetic and magnetic shielding material. The rotation essentially cut the horizontal component of the magnetic field of the Earth. The first cylinder generated enough energy to supply the pulse force to drive the second cylinder. The second cylinder generated enough energy to supply the pulse force to drive the third cylinder. The third cylinder generated 400 watts $\pm V$ enough to supply the pulse force to drive the first cylinder and more.

The file AVSEQ02.DAT shows both the first and the second generation electricity generators in a demonstration in 2000. A separate starting motor was used. The first generation was relatively bulky. See the China Patent Office Website at <http://www.sipo.gov.cn/sipo/default.htm> Patent Number 99126283.2 for details.

4.2 Second Generation (Extract Energy via Gravity)

The Second Generation Cosmic Energy Electricity Generator was also a machine from Mr. Sung Tim Fat. It essentially was the First Generation set up in the horizontal direction. The axis of rotation was horizontal. This effectively uses both the vertical component of the magnetic field of the Earth and the gravitational field of the Earth. The output was 20,000 watts. Figures 4.7 and 4.8 show the differences between the First and Second Generation.

Figure 4.7 shows the First Generation



Mr. Sung produced the video in February 2000. The video showed that the Generator could support a lamp, a fan and an electrical drill.

Figure 4.8 shows the Second Generation

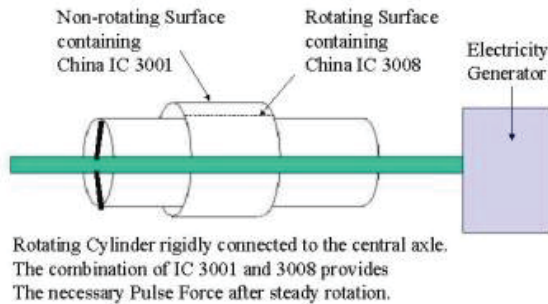


The Second Generation could generate 20,000 watts. Unfortunately, Mr. Sung went out of funds and borrowed from the Black Market. The consequence was that he ended up in heavy debt and had to hide from the moneylenders.

4.3 Third Generation (Use of Intelligent Chips)

The Third Generation was from Dr. Liang Sing Yan. Dr. Liang got the Generator from Mr. Sung and improved it. He used Intelligent Chips (a step better than Integrated Circuits) to provide the pulse force. The car could provide 188 horsepower and was demonstrated in 2003. Figures 4.9 and 4.10 show the details.

Figure 4.9 The Engine behind the Dr. Liang Car.



It consists of two cylinders with Intelligent Chips to provide the Pulse Force. The disadvantage was loss of power when climbing steep slopes.

Figure 4.10 The Car that requires no fuel



The details could be seen in the video AVSEQ01.DAT.

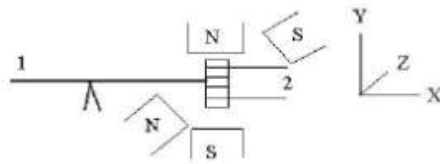
Dr. Liang made a major mistake in his raising of funds. He authorized many agents to help him. Many of these agents made false promises to investors. When Dr. Liang tried to present his inventions in Dec 2004, many angry investors filed lawsuits against him and his agents. The show was cancelled.

I believe that Dr. Liang should be rescued. His invention and ours will create phenomenal wealth for China and the World. See China Patent Application Number 01123526.8 for details.

4.4 Fourth Generation (Extract Energy via Changes of Magnetic Flux)*

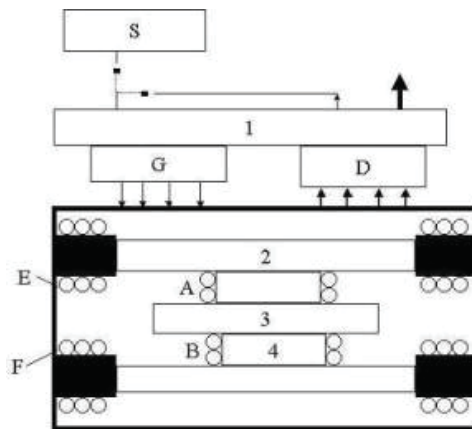
After we understood the use of rotation to extract energy from gravitational or magnetic fields, we started to investigate whether we could use vibration or no vibration at all. The answer to both questions were yes. The demonstration of a vibration device was from Taiwan using ocean waves. The demonstration of a non-vibrating device came from US patent 6,326,718. The non-vibrating device used changes in magnetic flux as the pulse force. Figures 4.11 and 4.12 show the details.

Figure 4.11 shows a vibration system.



A practical implementation was a vibration system using ocean waves as power from an Inventor in Taiwan.

Figure 4.12 shows a non-vibration system



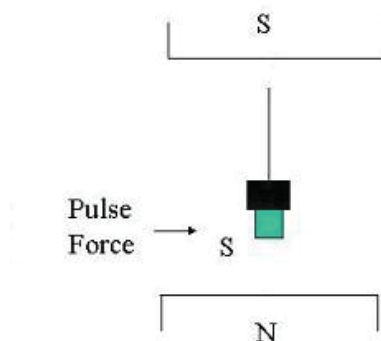
S supplies power to 1 which provides AC current via G to coils A and B. 3 is a permanent magnet to provide added magnetic flux to 2 and then to coils E and F. E and F provide AC power via D to 1. The output power from E and F is higher than that from A and B

The advantage of this technique is that the size of the Generator can be very small. However, the development is in early stages and much more effort is required to turn it into a usable product.

4.5 Fifth Generation (Improving the Third Generation over 100 times)*

The Fifth Generation came as a flash of brilliance from Mr. Lee Cheung Kin. We were trying to solve the slope-climbing problem of the Dr. Liang car. With pure gravitational force as source of power, the power decreases when the car climbs up a steep slope. If the outer cylinder of the Dr. Liang engine were replaced by a magnetic field and the Intelligent Chips in the inner rotating cylinder changed polarity at the highest and lowest positions, the problem would be solved with great increase in power at the same time. Figures 4.13 and 4.14 show the details.

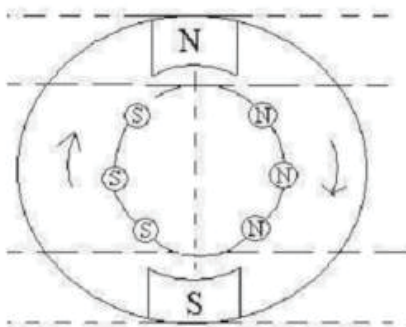
Figure 4.13 shows the enhancement of Gravity with Magnetic field



The magnetic pendulum has magnetic shielding material at the top. When such a pendulum swings under the Pulse Force, both Gravitational and Magnetic Energies are extracted.

(The equivalent gravitational constant can be less if the shielded magnet has N pole exposed. The consequence will be the subject of another report.)

Figure 4.14 shows the improvement over the Dr. Liang Engine



The Intelligent Chips at the outer cylinder are replaced by a magnetic field. The ICs in the inner cylinder are programmed so that they are N poles on one side and S poles on the other to provide a clockwise pulse force. The Magnetic Field can be very strong and all IC chips contribute to the Pulse Force.

We seek investment to further develop this generation of Cosmic Energy Machines. Please contact Mr. Stephen Chan, Marketing Manager, China Venture Capital Research Institute (Tel: 852 9184 4277) for investment details.

5. Summary

The summary is modified from our PCT patent application. (PCT/IB05/00138)

This invention uses the corrected theory of the pendulum to extract energy from gravitational fields. A pulse force applied to a pendulum can lead out gravitational energy. The energy can be changed into electrical energy such as allowing the metallic string of the pendulum to cut a magnetic field. The oscillation motion will slow down but the pulse force will lead out gravitational energy to speed it up again. The oscillation motion can be changed into a rotational motion for a more efficient operation. The same technique can be applied to magnetic or electrical fields.

We have effectively solved the World Energy Crisis. Oil is no longer a strategic material and there is no need to go to war over it. World Peace is one step closer. Modern Wealth will be the quality and quantity of Meaningful Economic Activities. Such Activities are infinite. The World can embark on the path leading to the Wisdom Society. Ignorance and Poverty will be history.

**http://peswiki.com/index.php/PowerPedia:Lee-Tseung_Lead_Out_Theory
http://peswiki.com/index.php/Directory:Rasa%27s_Zero_Point_Institute**

Thank you for reporting the work of my team (Lawrence Tseung et al) in the past.

Now we have something more concrete and interesting to demonstrate to the World. We now have a Pulse Motor that has been demonstrated to over 25,000 persons in two Open Shows in Hong Kong (InnoCarnival09 in November 2009 and Inno Design Tech Expo in December 2010.)

The Pulse Motor Wheel was developed by Mr. Tong Po Chi with my guidance using the Lead-Out Energy Theory. The Wheel had a 60 cm rotor with 16 equally spaced magnets. There were 15 corresponding air coils that could be configured as a Drive Coil or as a Collector Coil. The remaining position was used by a Proximity Switch.

The operation is as follows:

1. The Input Power comes from a 12 V battery.
2. Once switched on, the Wheel might start to rotate by itself or by hand if it happened to stop at one of the “dead positions”.
3. The Proximity Switch was set so that when a magnet on the rotor passed next to it, it would pass current via a relay to the Drive Coils. It would stop passing current when the magnet moved away.
4. The Proximity Switch could be adjusted so that the current passed through the Drive Coils when the magnets moved slightly passed the center of these Coils. These Coils became temporary magnets repelling the magnets to provide the Pulse Force.

5. The Coils would show no magnetic properties as soon as the magnets moved away as they were AIR coils.
6. The Drive Coils were connected in parallel and the Collector Coils were connected in series.
7. The Input Power was measured with DC Voltmeters and amp meters across the Drive Coils.
8. The Output Power was measured after converting the AC to DC across the Collector Coils.
9. When 10 Drive Coils and 5 Collector Coils were used, the Output Power as measured from the meters was greater than the Input Power. The actual COP (Output/Input) varied with the external load (1-3 3 watt lamps or a 47 Ohm resistor) and Proximity Switch tuning. The value varied from 1.8 to 4.2!

We now openly invite independent experts to verify the experimental results in Hong Kong. The Tong Wheel is now at the Office of Dr. James Wong of the Institute of Energy (IOE) of Hong Kong. You can email me to arrange for a suitable time.

How it Works

Innovation – The Story of Lawrence Tseung (3.3 Mb; doc) - Author: Lawrence C. N. Tseung; Editor: Miss Forever Yuen; Draft on Sept 4, 2008(The file is a draft review copy of a coming book.)

"In the Cosmic Energy Machines, we are NOT trying to create energy. We are using a Pulse Force to Lead Out energy. The layman's analogy is using a bucket to pour water from a large tank at the top of a hill. The energy of water flowing down the hill is NOT the muscle energy. The energy of water flowing down the hill is mainly the potential energy of water already available." Itseung888

"The Lee-Tseung theory predicts that both gravitational and electron motion energy can be lead out via pulse force at resonance on oscillating, vibrating, rotating or flux change systems. The ideal pulse force for a simple pendulum can be thought of as the pull applied perpendicular to the arc of motion when the pendulum bob is at the maximum displaced position. The detailed mathematical proof is via the analysis of the simple pendulum during the application of the ideal pulse force. The pulse force increases the tension of the string and leads out gravitation energy. For a horizontal pulse force, two parts of pulse energy can lead out approximately one part of gravitational energy. This gives a Coefficient of Performance (COP or output energy/input energy) of 1.5 during the application of the pulse. Some forum members did not appreciate the qualifying statement of "during the application?" and thought that the pulsed pendulum was a COP =1.5 system as a whole.

This misunderstanding is corrected here:

- (1) Let the time at which pulse force is applied be T pulse

(2) Let the time of oscillation of the pendulum be T oscillation

(3) Let T_{pulse} be $1/100$ of T oscillation. This represents the real case of pushing a swing and then let go. Most of the swinging time has NO pulse force.

(4) Let the system during the NO pulse force period be very efficient. Assume the COP is 1.0.

(5) The overall COP for such a system is not 1.5 and should be calculated as follows: $1.0 + (1.5 - 1) * 1/100$ (Spreading the higher efficiency source over the total time) = $1.0 + 0.005 = 1.005$

(6) In the real world, the pendulum has COP less than 1 during the NO pulse force period. Thus the net result of the real pulsed pendulum is less than 1.

(7) In order to get the real pulsed pendulum to exceed 1, we have to do one or more of the following:

Increase the number of pulses per unit time

Increase the pulse period

One practical way is to change the pulsed oscillation of the pendulum to the pulsed rotation of a cylinder.

With a pulse- rotating cylinder, we can increase the number of pulse points; increase the rotational speed; increase the mass at the rim; and increase the diameter of the cylinder to lead out the larger amount of gravitational energy.

The gravitational energy is not created but lead out. Patent offices, scientists and many inventors have not understood this lead out energy source in the past. Use of this lead out energy does not violate the law of conservation of energy."

Overunity Pulse Motor by Mr. Tong and Dr. Lawrence Tseung

"The secrets of making an overunity pulse motor: To bring your pulse motor into overunity mode there is a subtle balance between the shape and sizes of coils and magnets, size of the wheel, speed of the wheel, timing of the pulses, and the ratio of generator coils compared to motor coils. This unit has 16 magnets, 1 of the magnets is passing the sensor, 10 of the magnets are passing motor coils (connected in parallel), and 5 of the magnets are passing generator coils (connected in series). The input is around 1.8 Watts DC, and the output (after rectification) is around 2.3 Watts DC.

As you can see this design is very simple and was just made as a proof of concept. Major improvements are underway.

Two hints for those trying to build their own pulse motors: 1. High speeds are not necessarily better. 2. A smooth running wheel is certainly not better. It is the jerkiness between generator mode and when the drive pulse hits the magnets that allows for the overunity potential of the electromagnetic fields to be extracted.

Please help support the brilliant work of Mr. Tong and Dr. Tseung. If your local University

would like to purchase a simple overunity demonstration kit, we can send you the parts and the complete set up procedures. The set up process is very important and must be done in a careful way." (YouTube; February 04, 2010)

Circuit explained

"Oops, I made a mistake. Of course the sensor goes directly to the pulsing unit and the battery goes directly to the meters. The pulsing unit allows current to pass from the battery to the coils. The output goes through the meters and to a 3KW light. There is a little Back EMF being picked up by the drive coils before they fire which can be seen by the meter when you switch it to AC. However this is just being discarded for now. Those green laser sensors with the rainbow wires are not being used at this time." (YouTube; February 04, 2010)

Other Links :

<http://www.overunity.com> and search on "ltseung888"

<http://magnetmotor.go-here.nl/sung-tim-fat/>

<http://www.overunity.com/index.php?topic=2794.msg102108>

<http://www.energyfromair.com/IOE%5Ftalk/index.files/frame.htm>

Presenting the Lee-Tseung Lead Out theory and Principles of the Flying Saucer

by

Lawrence Tseung

Institute Of Energy
Sept 8, 2008

Law of Conservation of Energy

Essence of the Theory

When a sideward pull is applied to a simple pendulum, the lead out gravitational energy is equal to The vertical component of the tension of the string times the vertical component of the displacement.

So long as there is tension on the string, gravitational energy will be Lead Out.
The ideal Lee-Tseung Pull is when the direction of pull is tangential.

Using Gravitational Energy ... Inspiration from the swing or pendulum ... Review of Physics

(1) Parallelogram of Forces ... Experimental Set Up ... Review of Physics

(2) Modified for the Pendulum ... Experimental Set up ... Review of Physics

(3) Work done (energy spent) ... When we are given the two end Positions A and B We can detect difference in Potential Energy and hence Work Done. However, the Force and/or Displacement functions can vary... Actual work done or energy spent can be different! ... Different ways of moving from Position A to Position B (a) ... Different ways of moving from Position A to Position B (b) ... Different ways of moving from Position A to Position B (c) ... Experimental Set up ... Review of Physics

(4) The Lee-Tseung Pull

We now introduce one particular way of moving the pendulum bob from Position A to B ... The horizontal scale is kept as horizontal as possible with a slight upward movement of the hand to get from Position A to B ... This horizontal pull will cause the tension of the top scale to increase... Gravitational energy is Lead Out!!! ... The fourth and fifth way of pulling the pendulum ... Review of Physics

(5) Use of Gravitational Energy ... Use of Gravitational energy is not new ... Turbine at dam generates electricity...

Water get evaporated and come down as rain to fill dam again ... Can we shorten this cycle? ... Yes. Tension of String of Pendulum Bob can do work. ... The mathematics will be explained in the following slides.

Force Considerations in using Gravitational Energy

Displacement Consideration

General

Work = Force x Displacement

Work = Force x Displacement (vector)

Hori work = $F \times L \sin(a)$

Vert work = $Mg \times L(1 - \cos(a))$

Hori work is done by the externally supplied force F

Vert work is done by gravity via the tension of the string.

Substituting the actual values

Assume $M=60\text{Kg}$, $g=9.8\text{m/s}^2$, $L=1\text{m}$. $F=1/6$ of Mg . Angle $a = 9.46$ degrees, $T1=Mg/\cos(a)$, we get:

Horizontal work done by F (horizontal energy) = 16.10728 Joules

Vertical work done by Gravity through String

= 8.0069 joules

The ratio hori energy/vert energy is thus = 16.10728/8.0069

= 2.014

* Approximate 2 parts Horizontal Energy Lead Out 1 part Vertical Energy

Summary of discussion so far
When we pull the pendulum with a horizontal force, work is done.
Tension in the string also does work!
This work is done by Gravity via the String
This work is stored as energy in the pendulum system
This is the Lead Out energy...

Torsion (Spin) Fields

Interesting Semi-Science... The Quasi-Elegant Pseudo-Answer to Everything and Else !

[Wikipedia : Torsion \(Spin\) Fields](#)

[Patents](#)

[E.P. Kruglyakov : Pseudoscience -- How Does It Threaten Science and the Public ?](#)

[Y.V. Nachalov & A.N. Sokolov : Experimental Investigation of New Long-Range Actions](#)

[Y.V. Nachalov : Theoretical Basis of Experimental Phenomena](#)

[David Wilcock : *The Divine Cosmos* -- Chapter 9 -- Harnessing Torsion Waves & Consciousness](#)

[Jonna : Torsion Fields & Metaphysics / Parapsychology](#)

Alexandr A. Shpilman : <http://www.pmicro.kz/~ufl/ALMANACH/Axion.htm>

R. N. Boyd : <http://www.rialian.com/rnboyd/spin-torsion.htm>

Buryl Payne : *The Spin Force -- A Collection of Articles and Experiments ---*
http://www.buryl.com/spin_book.htm

Torsion Fields

<http://www.wikipedia.org>

Torsion Field

Torsion field, also called **axion field**, **spin field**, **spinor field**, and **microlepton field** is a pseudoscientific concept loosely based on Einstein-Cartan theory and some unorthodox solutions of Maxwell's equations^[1]. The torsion field concept was conceived in the Soviet Union by a group of physicists in the 1980s. The group, led by Anatoly Akimov and Gennady Shipov^[2], began the research as the state-sponsored *Center for Nontraditional Technologies*, but was disbanded in 1991 when their research was exposed as fraud and embezzlement of state funding, only to reemerge again as a private enterprise; *The International Institute for Theoretical and Applied Physics* and later as a private company UVITOR^[3].

Theories

Shipov formalism

Unlike the mechanism attributed to quantum spin effects, the torsion fields involve the use of long-range (Pauli) classical spinners to describe such interactions. Here, focus is not on the Dirac equation to describe fermion spin, but on a classical analogue, the Bargmann-Michel-Telegedi (BMT) equation to account for spin effects.^[4] BMT follows from a quasi-classical extension of the Dirac equation with an added Pauli term, and has been responsible for accounting for the anomalous magnetic moment of the electron, and confirms the effect of radiative self-polarisation, both without the necessity for the standard application of quantum electrodynamics.

Torsion fields also have the important characteristic of being affected by the specific topology/geometry of macroscopic objects and biological fields^[5], a feature which has been corroborated by the work of Glen Rein on DNA irradiated by non-Hertzian energy emanating from various geometric patterns^[6].

Torsion fields have been found, by Dr. Buryl Payne, to emanate from living organisms, included humans, cats, dogs, horses, plants, and fruits. They can be detected by a simple device he invented, called the "Biofield Meter", which can be constructed by anyone in an hour from household materials.[15]

Criticism and controversy

A field is simply an assignment of a quantity (vector, tensor, or spinor) to every point of space. The word torsion refers to any variable that describes rotation. Thus, torsion fields exist. For example, an electromagnetic wave with circular polarisation can be described as a "torsion field", although such description is not used in physics. Spinor fields, in particular, Fermionic fields, also exist and are a useful tool in particle physics and quantum field theory. However, advocates of the **spin field** or **torsion field** theories claim that spin-spin interaction (itself a well-studied quantum phenomenon) can be transmitted through space just like electromagnetic waves, but

does not carry any mass or energy, only information, and does so at speeds up to 10^9 of light speed. At the same time they claim that it is carried by neutrinos (which have both mass and energy), and that it does not interact with matter but, at the same time, can be generated and registered easily.^[7]

The basic postulates of these theories are full of contradictions and scientifically nonsensical statements^[8], but their applications take this a step further. Torsion field theory was hailed as the explanation for homeopathy, telepathy, levitation, clairvoyance, and other paranormal activity and ESP, which also would allow the humankind to harness it, building everything from miracle cure devices (including devices that cure alcohol addiction^[9]) to working stargates^[10], UFO propulsion analogs and superweapons. Many such devices, in particular the miracle cure boxes, have been patented^[11], manufactured and sold, and some appear to work due to placebo effect, and the torsion field scientists have been working hard to obtain large-scale government and military contracts.

A classic example of such fraudulent application is an experiment conducted in 1994 by the Russian private research group "VENT" (VENTure for Non-traditional Technologies^[8]) which claimed to lower the resistivity of copper as much as 80 times after exposing it to a torsion fields generator. The group applied to the government of Russia for funding to open a factory, and promised great savings in energy consumption. The samples of exposed and unexposed copper were independently measured in presence of the Vent representative and their resistivity was not only found to be identical between each other $(2.08 \pm 0.02) \times 10^{-7} \Omega\text{m}$ and $(2.05 \pm 0.02) \times 10^{-7} \Omega\text{m}$ but also worse than the industrial copper $1.7 \times 10^{-8} \Omega\text{m}$.^[8]

Other examples include the 2002 applications for oil drilling licenses in Russia and UK using "microlepton technologies"^[12], or the 1987 application to the Ministry of Defence of the USSR requesting funding to develop "highly-reliable detection of an enemy strategic weapon (ICBM, nuclear submarine, aircraft, etc.); the long-range destruction of enemy strategic weapons without contact; covert jamming-resistant communications with objects in space, on Earth, underground, and underwater; mobile equipment on gravitational principles; and psychophysical and biomedical influence on troops and the population"^[1] The state allocated 500 million rubles (about \$700 million at today's exchange rate) for this fraudulent research.^[13]

On the other end of the spectrum, there are purely mathematical theories, such as Einstein-Cartan theory or gauge theories of gravitation for the Poincare and the affine groups, that seek to add the torsion of spacetime to the curvature-based description of gravity, predicting a multitude of new physical effects. However the predicted effects are either infinitesimal or directly contradict the experimental evidence. In fact, spacetime curvature and torsion are simply alternative ways of describing the gravitational field that are mutually interchangeable in every way. Any attempt to account for them separately produced inconsistencies.^[14]

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[15] Payne, Buryl; "The Spin Force - A Collection of Articles & Experiments".
www.buryl.com/spin_book.htm

^{^ ab} Kruglyakov, Edward P.. "Pseudoscience. How Does It Threaten Science and the Public? Report at a RAN Presidium meeting of 27 May 2003". Zdraviy Smysl. Saint Petersburg Branch of the Russian Humanist Society.

[^] Gennady Shipov homepage

[^] UVITOR website

[^] Bagrov, V. (March 1992). "Possible Manifestations of the Torsion Field". Sov. Phys. J.: 208.

[^] Akimov, A.; Tarasenko, V. (March 1992). "Models of Polarized States of the Physical Vacuum and Torsion Fields". Sov. Phys. J.: 214.

[^] Rein, G. (May 1997). "A Bioassay for Negative Gaussian Fields Associated with Geometric Patterns". Proc. of the 4th Int. Symp. on New Energy, Denver: 225.

[^] Акимов А.Е.; Шипов Г.И., Логинов А.В., Ломоносов М.Н., Пузач А.Ф. (1996). "Торсионные поля Земли и Вселенной". Земля и Вселенная **6**: 9-17. (in Russian)

(English title:)Akimov A.E.; Shipov G.I., Loginov A.V., Lomonosov M.N., Pugach A.F. (1996). "Torsion fields of Earth and Universe". Earth and Universe **6**: 9-17.

^{^ abc} Бялко, А. В.. "Торсионные мифы". Природа **1998** (9): 93-102. Retrieved on 2008-02-11.(in Russian)

(English title:)Byalko, A. V.. "Torsion Myths". Priroda **1998** (9): 93-102.

[^] Boyd, R. N.. "Reduction of Physiological Effects of Alcohol Abuse By Substitution of a Harmless Alcohol Surrogate Created by Application of a Spin Field". application to NIH Alcohol Abuse Center.

[^] Sarfatti, J., Sirag, S.-P. "Star Gate Anholonomic Topology-Changing Post-Einstein Geometrodynamics" (2000)

[^] System and method for generating a torsion field - US Patent 6548752

[^] Strange events hit rural England on physicsweb.org

[^] Kruglyakov E.P., "The Demons of Ignorance and Greed" Interview given by Academician E. P. Kruglyakov to the newspaper Literaturnaya Gazeta, February 1, 2006

[^] Arcos, H. I.; Pereira, J. G. (December 2004). "Torsion Gravity: A Reappraisal" (PDF). Int. J. Mod. Phys. D **13** (10): 2193-2240. doi:10.1142/S0218271804006462. Retrieved on 2007-11-30.

External links

The Torsion Fields entry on amasci.com

Studies of the Spin Field and the Torsion Field by Robert Neil Boyd

debunk:

Kruglyakov, E.P.. *Pseudoscience. How Does It Threaten Science And the Public?* Report made by Academician E.P. Kruglyakov at the Presidium of the Russian Academy of Sciences Meeting, May 27, 2003.

Rubakov V.A. (2000). "Physical Vacuum: Theory, Experiment, Technology" by G.I.Shipov". Physics-Uspekhi **170** (3): 351-352. (Full text available in Russian)

Torsion Field Patents

<http://v3.espacenet.com/textdoc?DB=EPODOC&IDX=US2002153150&F=0>

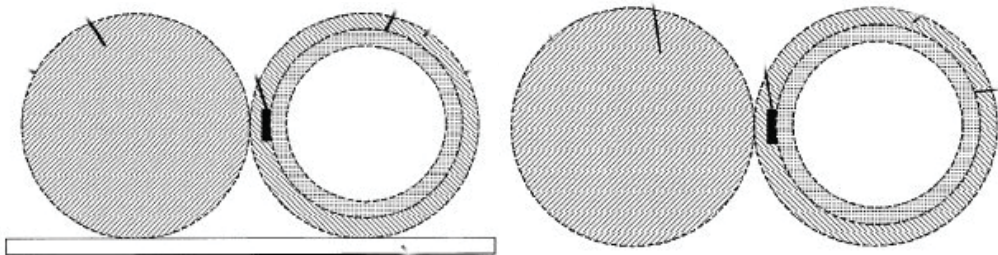
USP # 6548752

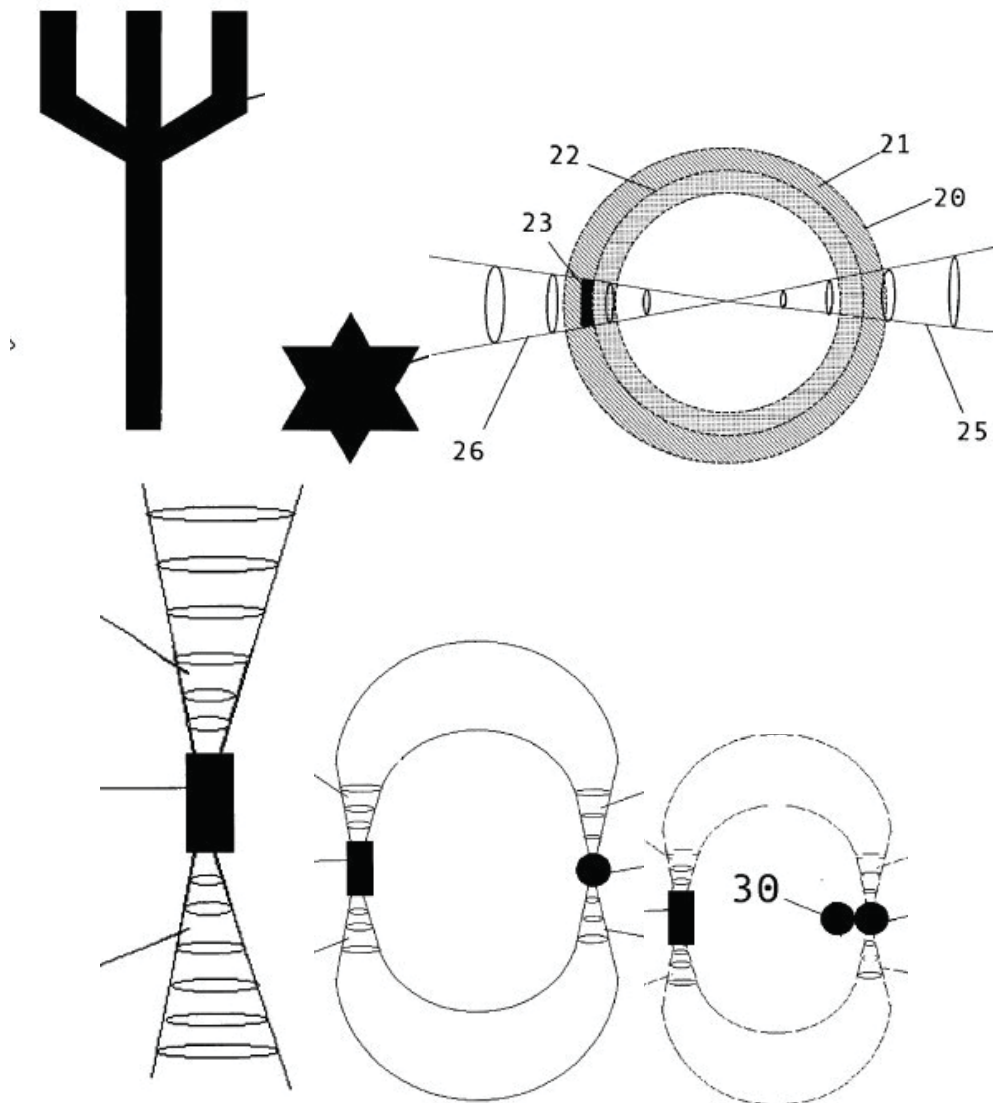
System and Method for Generating a Torsion Field

Anatoly PAVLENKO, *et al.*

April 15, 2003

Abstract -- A device for generating a torsion field having a salt solution disposed in a first chamber, a torsion field generator for producing a right torsion field, and a magnetic element. The magnetic element rotates in response to a change in magnetic polarity. The torsion field generator is operably associated with the magnetic element. As a result, the torsion field generator is oriented in a predetermined association with respect to the earth's magnetic field. The first chamber and the torsion field generator are disposed such that a portion of the right torsion field propagates through the salt solution.





<http://v3.espacenet.com/textdoc?DB=EPODOC&IDX=WO8000293&F=0>

WO8000293 // FR2421531

Apparatus for Amplifying Emissions Due to Shapes

Jacques RAVATIN

1979-10-26

Classification: - international: A01G7/04; A61N1/16; H05F7/00; A01G7/04; A61N1/00;

H05F7/00; (IPC1-7): H05C3/00; - European: A61N1/16

Also published as: WO8000293 (A1) // EP0016079 (A1) // EP0016079 (A0)

Abstract --- The apparatus comprises a polygonal frame with sixteen sides (1 to 16), this frame being associated with four electrodes (19 to 22) allowing to generate inside the frame a very high electric field. After a starting time of about half an hour, effects on certain physical parameters considered to be invaluable for a given location occur within a radius of several tens of meters around the apparatus: action on the earth magnetic field, the gravitation, the air refraction index, the speed of plant growth, etc..

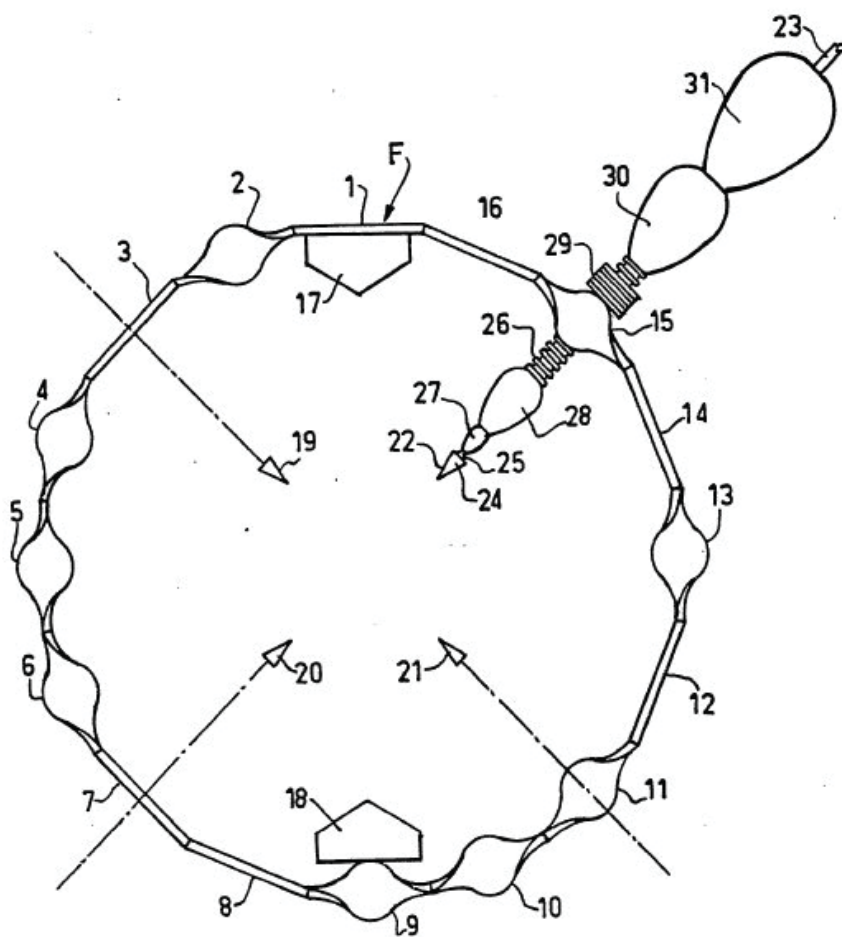


FIG.1

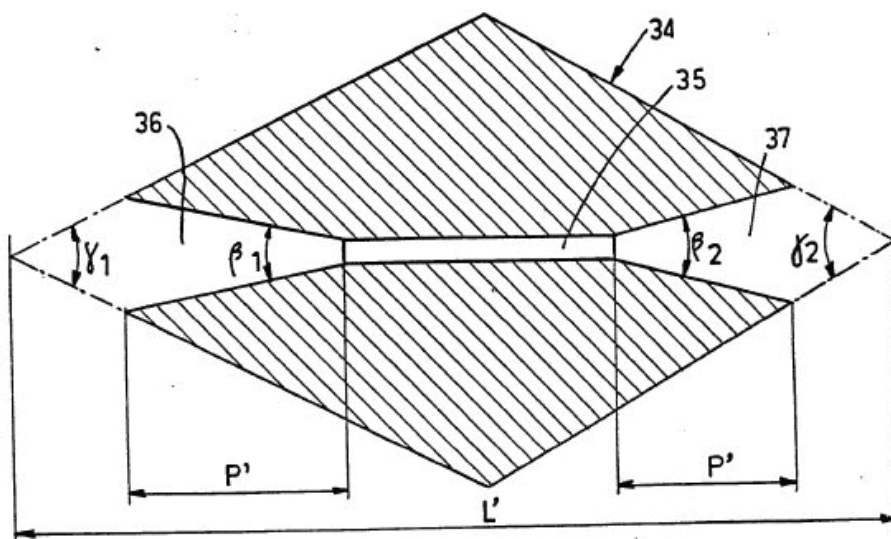


FIG. 3

BUREAU
OMPI

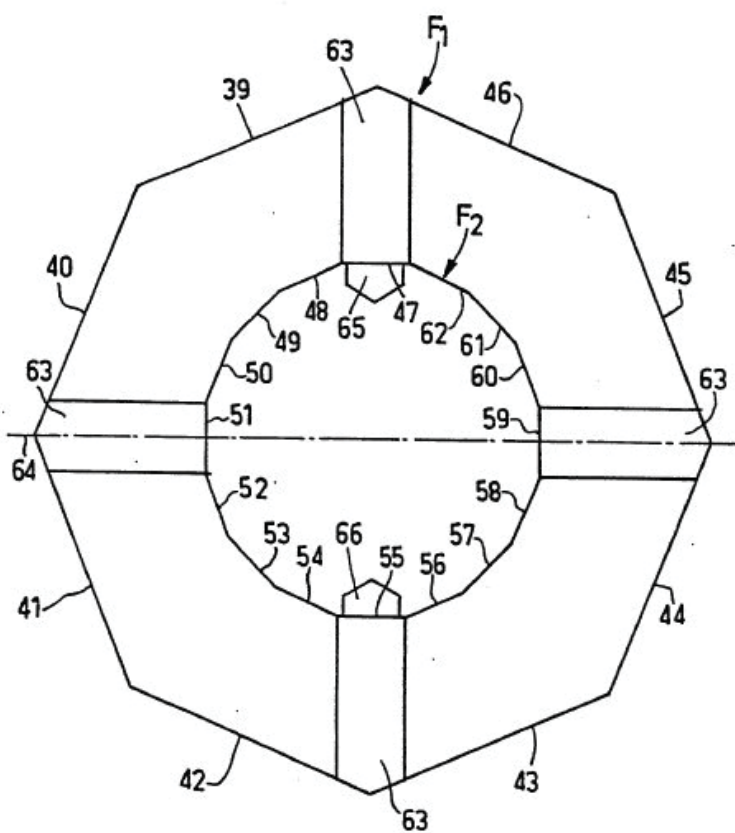


FIG. 4

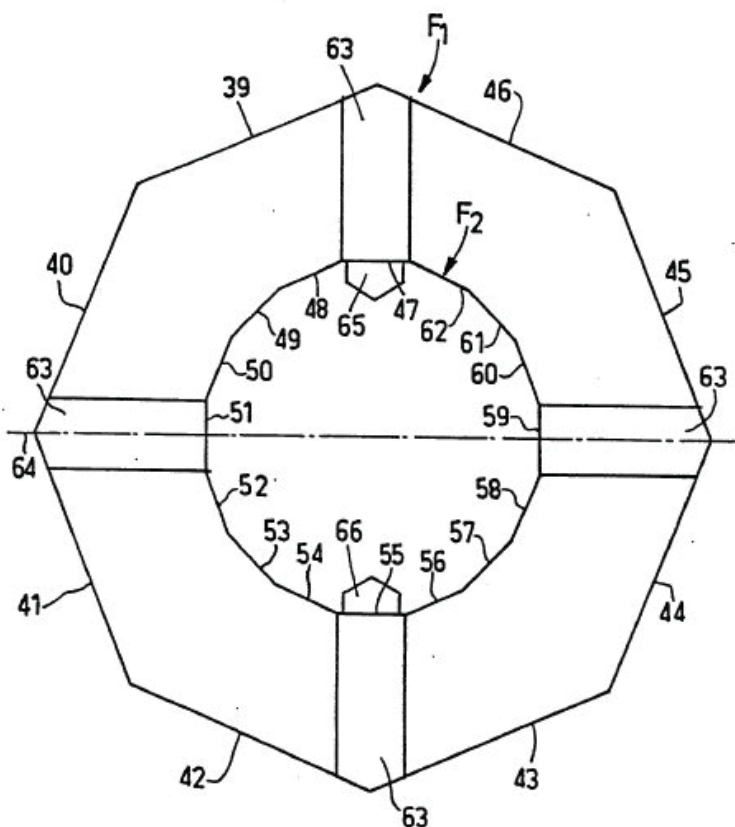


FIG. 4

<http://v3.espacenet.com/textdoc?DB=EPODOC&IDX=DE3320518&F=0>

DE3320518

Device for Changing Radiesthetically Measurable Fields

Paul SCHWEITZER

1984-12-13

Classification: - international: A61N1/16; A61N1/00; (IPC1-7): A61N1/16; - European: A61N1/16

Abstract -- The invention relates to a device for changing radiesthetically measurable fields with the object of avoiding the pathogenic effects of their biologically active regions, the so-called

irritant zones. These fields are mainly caused by underground water veins. However, they are also found in space lattice-like structures, the so-called lattice systems incident from the atmosphere. All the measures and devices known to date for attenuating or eliminating the effect of the irritant zones have shortcomings or disadvantages. As a rule, they are ineffective with regard to the particularly dangerous crossing region of the irritant zones, or they detect only individual frequencies and must be adjusted with the risk of inefficacy due to maladjustment. The invention is based on the object of creating a device for changing radiesthetically measurable fields which avoids the aforesaid disadvantages. This object is achieved using a pyramidal body in that one or more elements, e.g. another pyramidal body, or an element which is resonant in the microwave range, e.g. a spiral, or a homeopathic preparation, is arranged within or directly underneath this body.

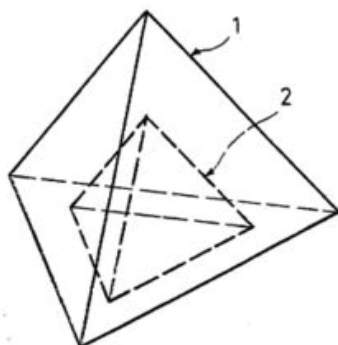


FIG. 1

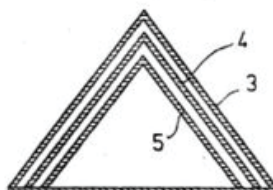


FIG. 2

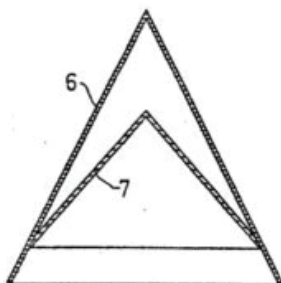


FIG. 3

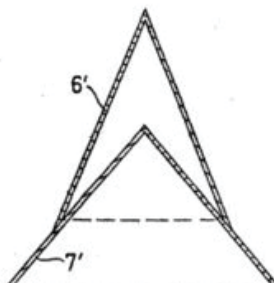


FIG. 4

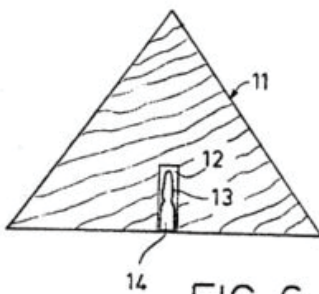


FIG. 6

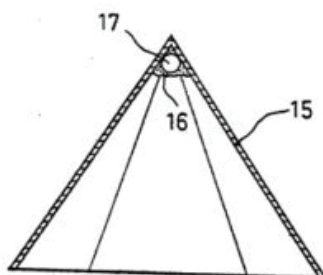
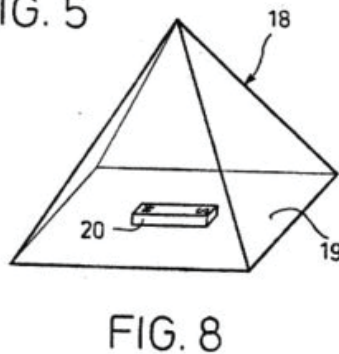
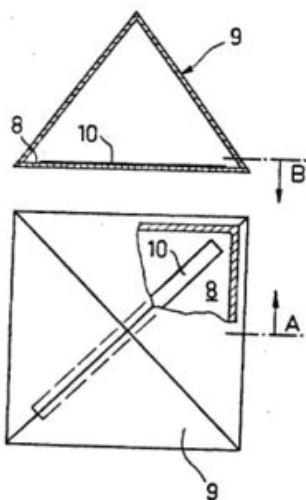
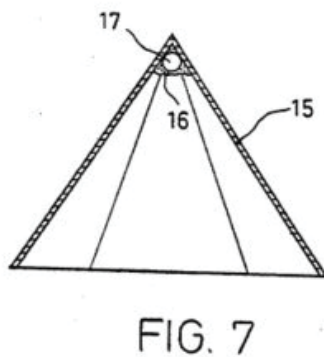
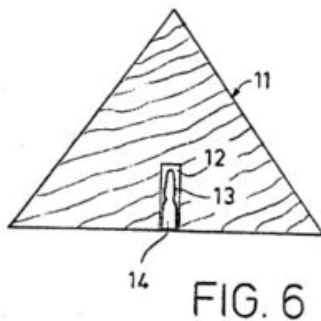


FIG. 7



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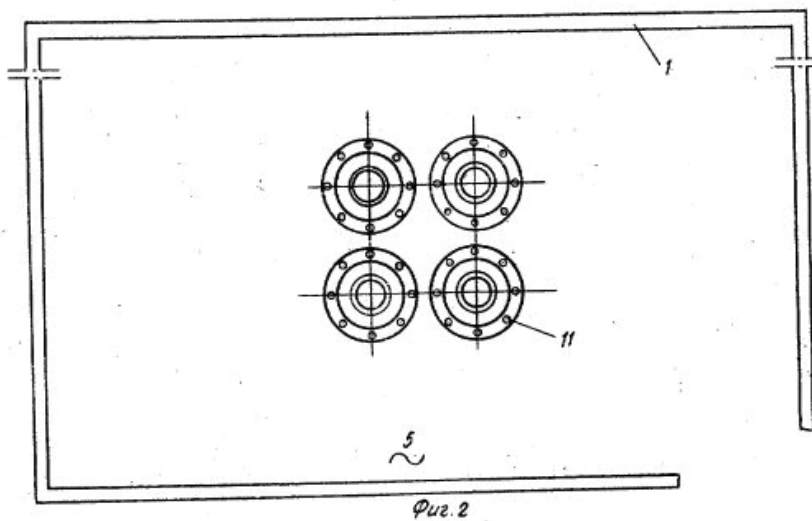
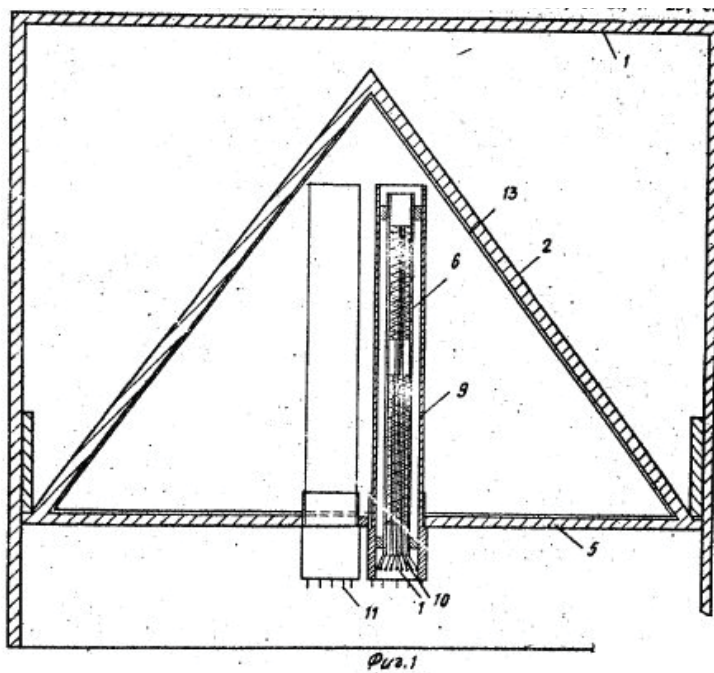
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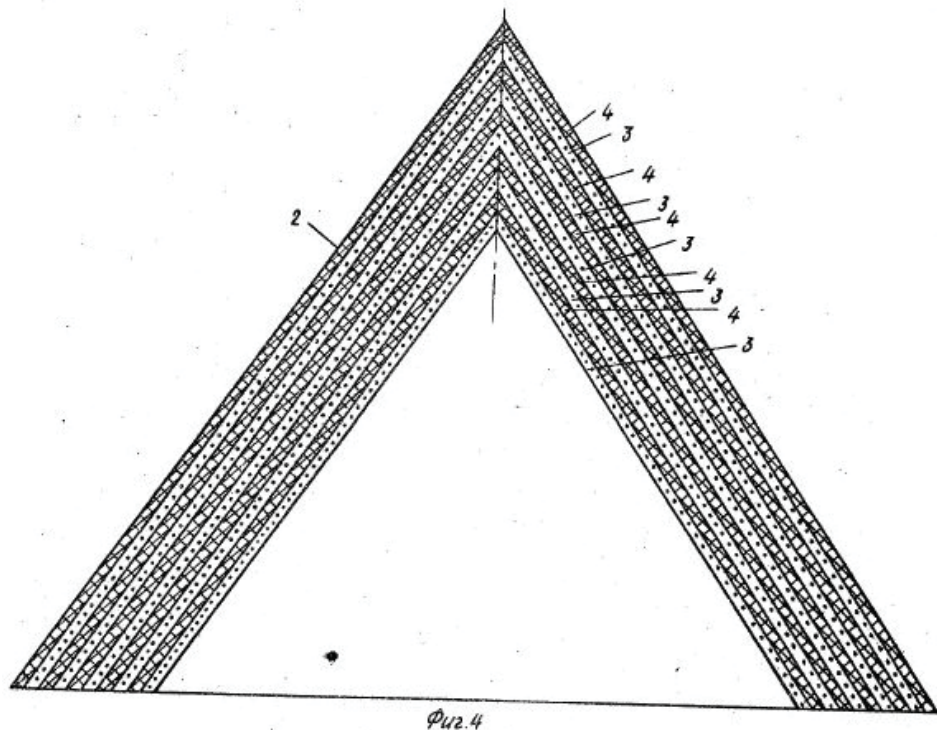
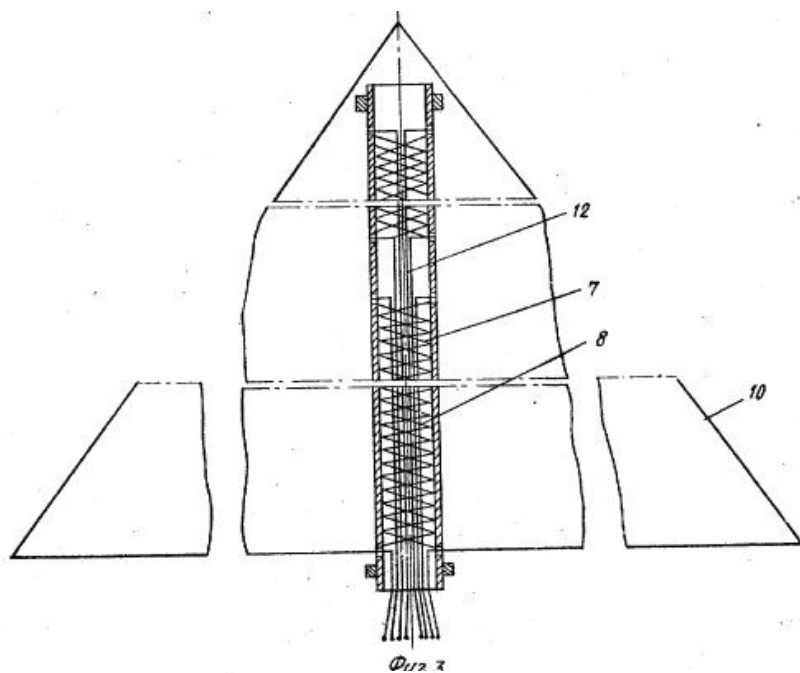
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DEVICE FOR THE DETECTION MAGNETIC FIELDS OF BIOLOGICAL OBJECTS
1979-09-25

Dzhuzeppe FANTUTSTSI

Classification: - international: A61B5/00; A61B5/04; A61B5/00; A61B5/04; (IPC1-7):
A61B5/00





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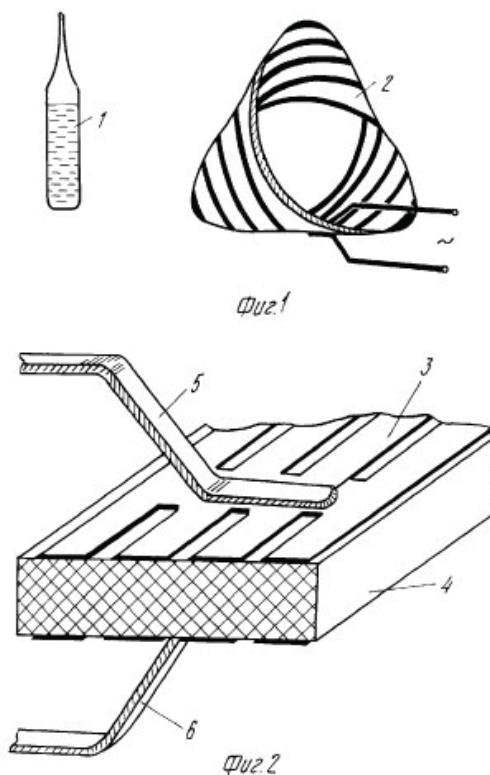
METHOD FOR OBTAINING MAGNETICALLY CHARGED ELEMENTARY PARTICLES...

Leonid URUZKOEV & Ivan M. SHAKHPARONOV

EC: G21K1/00 IPC: G21K1/00; G21K1/00; (IPC1-7): H01S4/00 (+3)

2002-05-30

Abstract -- The invention relates to physicochemical processing and can be used in various fields of human activity, in particular for nuclear physics research. The invention is characterized by a physicochemical processing method which consists in the following: chemical elements and/or the composition thereof, substances, materials, biological tissues and organisms are continuously (by direct current) and/or impulsively (by periodical pulses) exposed during a preset time to the effects of a catalyst impact e.g. elementary magnetically charged particles. [w/ a Moebius band]



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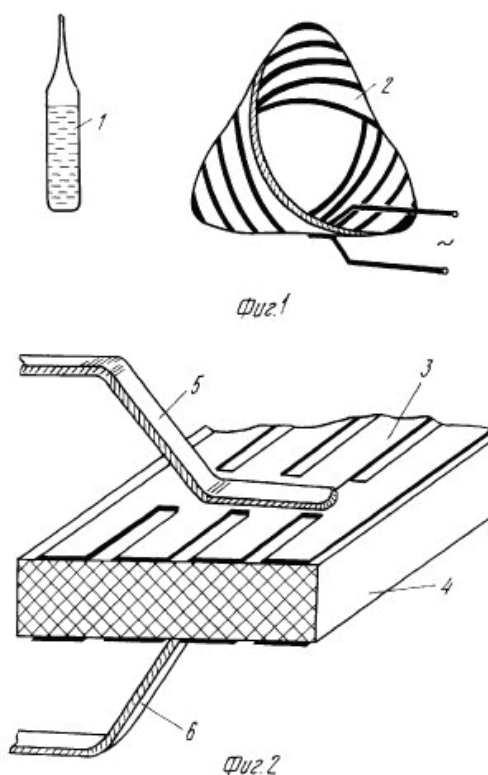
RU2061266

METHOD FOR DECONTAMINATION OF RADIOACTIVE MATERIALS

Ivan M. SHAKHPARONOV

EC: IPC: G21F9/00; G21F9/00; (IPC1-7): G21F9/00

1996-05-27



<http://v3.espacenet.com/textdoc?DB=EPODOC&IDX=RU2123736&F=0>

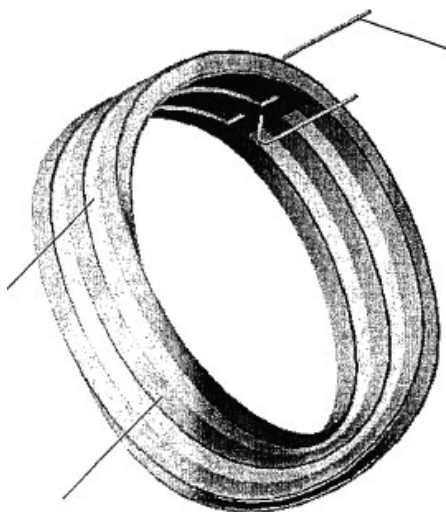
RU2123736

NONMAGNETIC MATERIAL MAGNETIZING TECHNIQUE

Ivan M. SHAKHPARONOV

EC: IPC: H01F13/00; C02F1/48; C02F103/02 (+4)
1998-12-20

Abstract -- FIELD: electrical engineering, medicine, building engineering. SUBSTANCE: material is irradiated by external magnetic field source made in the form of set of current-conducting strips placed on insulating substrate folded in the form of Möbius band. Conducting strips are provided with output terminals. Magnetizing time is inversely proportional to product of magnetizing material thickness by specific weight. EFFECT: facilitated procedure.



<http://v3.espacenet.com/textdoc?DB=EPODOC&IDX=RU2055499&F=0>

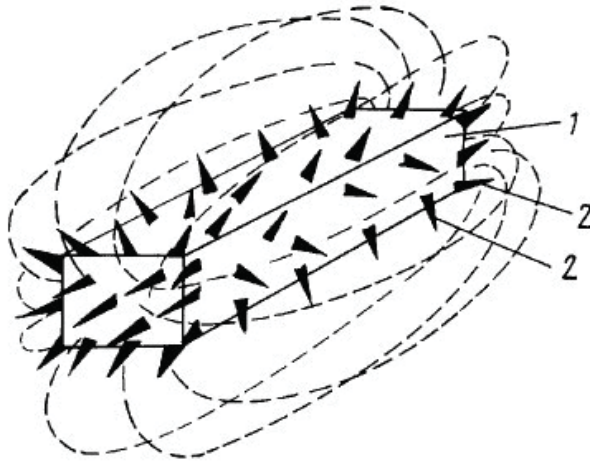
RU2055499

HEALTH-IMPROVING MAGNET APPARATUS

Ivan M. SHAKHPARONOV

EC: IPC: A44C15/00; A61N2/00; A44C15/00 (+3)
1996-03-10

Abstract -- Apparatus comprises a permanent magnet enclosed into a capsule of nonmagnetic material. External surface of magnet has pointed members of a magnet-permeable material oriented along the magnetic field of permanent magnet. The magnetic component of the bioenergetic field of natural and technogenic origin interacts with magnetic fields of apparatus. The pointed members on the external surface of the magnet induce high local intensity of both magnetic and electrical fields, thus breaking and destroying the external autowave 'harmful' to man.



Torsion Fields

<http://humanism.al.ru/en/articles.phtml?num=000010>
Saint Petersburg Branch of the Russian Humanist Society

Pseudoscience. How Does It Threaten Science and the Public?

Academician E. P. Kruglyakov
Translated by G. Goldberg

(Report at a RAN Presidium meeting of 27 May 2003)

The attitude of the government to science is changing for the better. This is remarkable. The President of the country, V. V. Putin, has announced a long-range program of support to science. It would seem that there is every basis to view the future with optimism. However not everything is so cloudless. There are influential forces in society which are interested in reducing the role of science. One of these forces concerns us today.

Here are statements of one of our newspapers with a large circulation, "An old threat hangs over new science which penetrating into the key secrets of the universe - it is from the Russian Academy of Sciences which has organized a Commission to Combat Pseudoscience". We will

talk later about what they mean by "new science", but right now here's one more quote, "Succumbing to the most complex riddles which nature presents us with, the RAN is hastening to label as pseudoscientists those researchers who risk working on the leading edge of knowledge".

The quotes cited are not the point of view of a rude journalist; this is an assignment. A systematic, intentional duping of the population is going on via the mass media. Just a few of these headlines are frightening, "Ordinary lasers destroy human blood", "The collapse of classical physics", "The monster blood-drinkers return", "Russian physicists have discovered a new lethal radiation". The terrible poison which they feed people leads to an estrangement of the public and the systematic cultivation of a doomed people for whom everything has been predetermined. They dissuade people from thinking critically but teach them to believe blindly. By the way, the very same attempts are also being made in the field of education. Whatever the apologists of reform say, they are trying to lower the educational level in Russia. Academician V. I. Arnold has written about this more than once and therefore I will not develop this theme. I note only that some "successes" have already been achieved in this direction.

Who needs to drive the country back into the Middle Ages? People who cannot think critically, who are unacquainted with logic, and are easy to manipulate. If science is suppressed (in such an event education itself will weaken) a golden age will begin, for example, for businessmen working to sell the population completely absurd "instruments" treating up to 350(!) various ailments and for corrupt officials supporting [this] criminal business. The situation today in the market of medical instruments already seems completely abnormal. Quantum medicine instruments and senseless zircon bracelets are insistently advertised; a whole series of devices has arisen which catch the radiation of diseased cells, amplify them and return them to the diseased cells "in opposite phase", after which recovery occurs instantaneously. Various swindlers vary the idea in various ways: one directs the radiation of the diseased cells on the same [cells] thanks to the effect of the intensification at the expense of the interference. Another directs the radiation of healthy [cells] on diseased cells...It is surprising that, as a rule, the "instruments" have the permission of the Ministry of Health or the Chief Medical Officer so that they rob unfortunate sick people on a legal basis.

A little here about the "instruments" referred to. For besides them are "instruments" generating electromagnetic radiation and gravitational waves (several such devices do not even require electrical power). The hit of last season was a neutrino generator for treating cancers at any stage. The author of this "masterpiece" produces neutrinos while passing acoustic waves through a vacuum. Even schoolchildren should know that there is no way a sound wave can pass through a vacuum but the author of this nonsense, passing himself off as a professor, firmly stands his ground. It also does not embarrass the inventor that physicists have to create detectors weighing hundreds of tons to detect neutrino particles or that neutrinos are created in the center of the Sun and get to its surface practically without hindrance, freely passing through the Earth's crust.

One can judge how shamelessly some of the aforementioned devices are forcing their way into various regions of the country by the scale of corruption of high-ranking medical officials. By the way, they, too, will be more comfortable without science.

Most of this market is built on deceiving buyers who are retirees. However, wealthy people are also not forgotten. Not long ago a holographic patch was offered for sale - "a planar torsion generator". This "instrument" protects owners from the influence of the harmful radiations of cell phones, microwave ovens, television sets, etc.

With our support a group of enthusiasts from St. Petersburg tried to take licenses away from psychic healers which they got to....correct biofields. This action encountered rabid resistance. But at the same time biocorrectors and bioactivators which correct a non-existence biofield are spreading throughout the entire country. If our biologists are not involved and the Russian Academy of Medical Sciences [RAMN] is asleep on the job, the shameless robbery of sick people will continue in an ever-increasing scale.

The mass adoption and use of pseudoscience began with the appearance of latter-day wonder workers on TV screens like A. Chumak. Today pseudoscience has penetrated into many government agencies. Its traces are observed in the Ministry of Defense, the Ministry of the Emergency Situations, the Ministry of Internal Affairs, and the State Duma. I will cite several examples. Speaking live on the eve of the New Year on the RTR channel S. Shoygu [the Minister of the Emergency Situations Ministry, MChS] said that the MChS uses the advice of astrologers in its work. Several years ago a laboratory of psychics was organized in the MChS. Military Unit 10003 continues to operate in the Ministry of Defense, conducting quite dubious experiments with sorcerers.

On 16 January 2003 on the "Culture" channel another minister (M. Shvydkoy), acting as the moderator of the program "Kul'turnaya Revolyutsiya [Cultural Revolution]", organized a show, "Only Astrologers Can Be Believed", where an actress completely removed from science was selected as the opponent of an inveterate astrologer and demagogue V. Ledovskikh while among the audience in the hall were several professional astrophysicists, who had no chance to speak seriously on the subject from a scientific perspective.

A booklet by O. Krushel'nitskaya and L. Dubitskaya "Stories About Astrology" was published on order of the Ministry of Education (!) to help the next generation and the "Prosveshcheniye [Enlightenment]" Publishing House and T. Globa issued a series of handbooks, each of which was devoted to a particular sign of the Zodiac and accompanied by the corresponding text (about 10 pages), from which the student learns under the influence of which planet the year is, what problems it portends, etc. Of course, it doesn't come to his mind whether to check whether or not his horoscope is accurate. Thus the masters of deception are forming a Middle-Age consciousness in their selfish interests. It remains to add that in the Russian national classification of professions astrologers have already been placed on a level with soothsayers. Alright, but what the actual encouragement of astrologer charlatans is leading to, judge for yourself.

Several years ago a theoretical and practical seminar was held in the Scientific Research Institute of the Ministry of Internal Affairs [NII MVD] where among others things means of identifying criminals with the aid of astrology, clairvoyance, and dowsing were discussed. Bringing in astrology, an NII MVD employee, Doctor of Juridical Sciences Ye. G. Samovichev, explained why serial murders remain unsolved for so long. "The difficulty of solving these crimes is

dictated, in particular, by the resistance of these programs (determined by the date of birth and the date the crime was committed - Eh. K.) to outside influence since in practice a criminal can be arrested and convicted when the time of "operation" of his criminal program is coming to an end". It evidently never occurs to Mr. Samovichev that 300,000 people are born in the world daily. Thus 300,000 serial murderers will appear on Earth after just one astrological cycle. So where are they?

It is difficult for expert investigators after the lectures of such "scientists". And it is not accidental that they have already started to come from regional procurators' offices to our Commission for explanations, for the above seminar is not the only place where they teach pseudocriminology. A deputy committee chairman of a previous State Duma, Doctor of Technical Sciences V. Tetel'min, made his own contribution to this matter: "Orthodox science 'does not notice' the artificial bioresonance, the targeted influence of one person on the biofield of another. It is possible to do this by technical means, let's say, with the aid of an individual- or mass-action psychotronic weapon. It is true that until now it was thought that such a weapon had not been created but that if individual models were created then they could operate only at a very close range. But in a number of cases great distances are not required. Thus, in one version the wife of State Duma deputy Lev Rokhlin was subjected to zombification with the aid of a low-frequency quantum resonance emitter. Supposedly she did not know what she was doing [Rokhlin's wife killed him using his pistol - Eh. K.] inasmuch as her brain was controlled by other people". I think that there is no need to comment on such an absurdity.

An unfortunately famous general, G. Rogozin, was observed in the entourage of the first President of Russia, B. N. Yel'tsin, who predicted the start of a thermonuclear war in August 1999 as well as a scoundrel, G. Grabovoy, exalting himself as a doctor of physicomathematical sciences. By the way, the latter said that today he mentally checks the condition of the President's aircraft before takeoff. He is the inventor of a unique instrument - a "crystal module" - with the aid of which the power of the nuclear explosion was substantially reduced during underground nuclear tests at Semipalatinsk. Although the absurdity of such a statement is completely obvious to any physicist, an investigation was conducted especially for nonprofessionals which showed that Mr. Grabovoy had never taken part in nuclear tests. Thus, G. Grabovoy is lying. Gullible officials ought to know this, for he has let it be known that the crystal module will be good at nuclear power stations. You can never tell; they might still set up the "instrument" at an atomic power station! From a recent television broadcast one happens to find that Mr. Grabovoy lectures at the MChS and is a consultant to the RF [Russian Federation] Security Council.

Military astrologer A. Buzinov worked at the Ministry of Defense for a long time. Inasmuch as every tank, aircraft, and ship has its own date of "birth", Mr. A. Buzinov has indeed found a vein of gold, having extended the astrological rules of the game to military equipment. Our mass media has facilitated the growth of his popularity in every way. One should think so! For he has precisely predicted a number of crashes, in particular, the loss of the ferry boat "Estonia" in the Baltic, a "Ruslan" aircraft over Irkutsk, etc. True, for some reason we found out about these surprising predictions after the fact. I want to mention here a case which the mass media left out. Right after the tragic events connected with the explosion of apartment houses in Moscow he appeared at the Federal Security Service Directorate for Moscow and Moscow Oblast and declared that he was able to identify where the terrorists were hiding explosives. I cannot say

whether the FSB officials believed the prophet or not but a careful investigation of about 10 addresses indicated by A. Buzinov was immediately organized: the consequences could have been too serious. Of course, no explosives were found. For some reason the mass media were silent about this. But this is enough by itself to forget about this person forever.

One of the reasons for the growth of the influence of pseudoscience is associated with the attitude of a majority of scientists toward this phenomenon. This attitude could be described in such terms as squeamishness, scorn, condescension, and connivance. The majority of scientists do not yet recognize the degree of danger hanging over science.

Speaking at the Vatican not long before the end of the last century, Academician V. I. Arnold said, "Considering the explosive nature of every kind of pseudoscience (like astrology), in the coming century a new era of obscurantism like the Middle Ages is completely likely in many countries. The present flowering of science can change to an irreversible decline similar to what occurred with painting after the Italian Renaissance".

The well-known American philosopher P. Kurtz recently noted: "We live in a time when the progress of science at the frontiers of knowledge is unprecedented. At the very same time anti-science, pseudoscience, and faith in the paranormal are growing, challenging the vitality of scientific research". We see that the growth in the influence of pseudoscience is not just of concern to our Commission.

Let's try to point out the primary "points of growth" of pseudoscience in our country. First of all, let's cite an excerpt from a document which landed on the desk of the head of the Soviet government 15 years ago. "A lag in the area of the theory and practice of spinor fields can have irreversible consequences in such defense areas as the methods and means of the highly-reliable detection of an enemy strategic weapon (ICBM, nuclear submarine, aircraft, etc.); the long-range destruction of enemy strategic weapons without contact; covert jamming-resistant communications with objects in space, on Earth, underground, and underwater; mobile equipment on gravitational principles; and psychophysical and biomedical influence on troops and the population, etc." It is easy for one to imagine what the Prime Minister would feel. We're talking about a weapon more powerful than a nuclear weapon. If you don't give the money you'll get the "irreversible consequences". Resources had to be allocated – 500 million rubles. But it was completely possible to deny them. All that was needed for this was a skilled expert review. A unique expert review was conducted in 1991 when from the rostrum of the General Meeting of the USSR Academy of Sciences [AN SSSR], corresponding member (now academician) of the AN SSSR Ye. B. Aleksandrov exposed the swindle of torsion fields (by this time spinor fields had been turned into torsion fields). After discussion in the AN SSSR General Physics and Astronomy Branch and an appeal to a USSR Supreme Soviet committee, the later adopted a decree "The Shameful Practice of Financing Pseudoscientific Research From State Sources". Right afterwards the Center of Nontraditional Technologies, created in the USSR GKNT [State Committee for Science and Technology] to implement the torsion program, was disbanded, and the director of the Center, Mr. A. Ye. Akimov, the godfather of this whole swindle, was fired. But soon A. Ye. Akimov organized a small enterprise with the sonorous name "The International Institute of Theoretical and Applied Physics" of the RAEN [Russian Academy of Natural Sciences]. The torsion swindle has grown and expanded from that time. For unknown reasons

Akimov received financing from the Ministry of Science from 1992 to 1995 . In 1996-97 the Ministry of Defense financed Akimov's projects concerning mythical torsion communications channels. It is possible that financing continued further but this is difficult to establish: the work was done secretly. The fact itself that for almost 10 years confidential work has been done on a fifth type of interaction unknown to world science but known only to a small handful of initiates seems ridiculous and could have only one reasonable explanation: corruption.

It is interesting that today Mr. Akimov has completely forgotten his promises about torsion superweapons. Now it's about unique peaceful torsion technologies. And from time to time he gets caught in fraud. For example, in 1996 he stated, "The first flying saucer will soon be tested at NPO [Scientific Production Association] 'Energiya'. [It is currently called the "Energiya" Missile and Space Corporation]. Its principle of propulsion is completely new - there is no use of a reactive force. If the tests are successful there is a real prospect of a conversion of all transportation (SIC - Eh. K.), automobiles, trains, etc. to a new principle without the use of internal combustion engines" ("Chisty Mir [A Clean World]", N4, 1996). And here is a comment of V. P. Legostayev, the First Vice President and First Deputy Chief Designer of RKK "Energiya": "RKK 'Energiya' has not been working on, is not working on, and does not expect to be working on the development of 'flying saucers' based on a torsion field generator". Why am I describing this adventure in so much detail? The problem is, although there is not a single supporter of A. Ye. Akimov in the Physics Branch of the RAN and although the Physics Section of the RAEN has harshly condemned the activity of A. Ye Akimov and his henchman G. I. Shipov in the Physical Sciences Branch of the RAN, the torsion swindle is seizing newer and newer bridgeheads. Under the supervision of Mr. Akimov several closed stock companies have been formed which in recent years have gathered a harvest not only inside the country but also in the international arena. Among the unsuccessful operations of similar firms I can mention the attempt to introduce "torsion technologies" at the "Norilsk Nickel" industrial complex with the promise of an annual savings of \$250,000,000. An attempt to clean the Yauza River with the aid of torsion generators barely failed. But here an operation to clean Gelendzhik Bay went brilliantly. Large funds were extracted from the budget. The secret consisted of comparing analyses from 1990, when waste runoffs in the bay were halted, and seven years later, after "processing" of the bay with approximately 100 milliwatt torsion generators.

In 1998 they managed to dissipate the haze over Malaysia from forest fires in Indonesia with the aid of similar generators. In my view, these enormous scams are possible only with the corrupt participation of high-ranking officials. Only the support of high-ranking protectors can explain the audacity of Messers. Akimov and Shipov, who dared slander academician Ye. B. Aleksandrov in the magazine "Elektrosvyaz". Obviously the benevolence of similar protectors could explain the recent quite bold statement by A. Akimov about the capabilities of "torsion technologies". "With their aid we can get energy practically from nothing, replacing all the thermal and atomic power stations and creating an alternative to nuclear power. New kinds of motors have already been tested which burn neither oil, nor natural gas, nor any other hydrocarbon types of fuel, and this means they do not pollute the environment. It has been shown in experiments that new types of communications operate without sending out electromagnetic waves but by completely different principles which practically require no traditional power". ("Intellektual'naya sobstvennost' [Intellectual Property]", N4, 2000).

One can catch Mr. Akimov in a swindle or fraud at each step, but this is a separate topic. I would like to note that the indifference and connivance of many scientists has led to regrettable results. The myth of torsion fields and torsion technologies has found fertile ground in the most unexpected places. For example, in Novosibirsk a so-called "International Institute of Cosmic Anthropoecology" appeared under the aegis of academician V. N. Kaznacheyev of the RAMN and Doctor of Medical Sciences A. V. Trofimov, having been accredited by the Ministry of Science in a completely incomprehensible manner. For example, in this Institute there is a torsion generator and research is conducted "to study the vital substance in torsion fields". Two words about this unique Institute. As the director of the institute, A. V. Trofimov, reported, "In our research on the long-range transmission of information we compared the astrological and astrophysical data of the participants using NOVA, an American database on astrology. They can change the course of time in this institute with the aid of "Kozyrev's Mirrors". And also in the Institute a laser beam interacts with "a reflected human biophysical field". Do not the examples cited demonstrate that so-called state accreditation has been turned into particularly bureaucratic games if obvious pseudoscience receives state support, in spite of the negative findings of a number of scientists, incidentally?

After the collapse of the USSR pseudoscience began to penetrate into the country's higher educational institutions. In 1994 a textbook by A. V. Vachayev and N. I. Ivanov was published in the Magnitogorsk Mining and Smelting Academy called "Power and the Technology of Structural Conversions". What is this book about? Models of the electromagnetic impulse rearrangement of the symmetry of elements are cited, as a result of which lighter and simpler elements are formed with an allocation of energy of the broken structural bonds". Here is one more excerpt from the text: "The impulse method of rearranging discharge water of any composition can become a reliable source of acquiring pure elements and energy". I think that no comments are necessary here. But [the names of the] irresponsible reviewers ought to be published. They are Doctor of Technical Sciences Prof. of Chelyabinsk State Technical University Ye. V. Toropov and Candidate of Technical Sciences, Senior Scientist of the MEHI [Moscow Power Institute], S. V. Kartavtsev.

In Rostov-on-Don in 1997 a book came out titled "Concepts of Modern Natural Science" written by collective authors under the leadership of Doctor of Sociological Sciences Prof. S. I. Samygin. The Ministry of Education recommended the book as a textbook for students of humanitarian and economic specialties of higher educational institutions. Here's the kind of "discoveries" the book presents to students: "Scientists assume that there is information about each object and about animate and inanimate objects at all points of the universe simultaneously. One more "pearl": "The information field contains information about everything in the universe and is capable of producing life and directing its development". "A holographic model is considered the most suitable model for explaining psychophysical phenomena". I hope that one can do without comments here.

A book of the late president of the International Academy of Informatics I. I. Yuzvishin, "The principles of Informationology", deserves special mention (Moscow, the "Informatsiologiya" Publishing House and the "Vysshaya Shkola [University]" Publishing House, 2000). I have already had occasion to analyze the previous book of Mr. Yuzvishin, "Informatsionlogiya" which contains many appalling absurdities. In particular, in it the speed of light has been changed from

10 million km/sec to 1 m/sec. In the new book he is done with that. The author even thanked me for critical comments. Now there appear new stunning "discoveries": "it can be said that in the depths of the universe it is likely that there can be temperatures of zero degrees Kelvin and lower 00K: 5-K, 10-K, 20-K, 30-K, and so on". "In order to expand scientific research and remove the orthodox quasi-scientific 'prohibition' it is proposed that the temperature scale be hypothetically expanded". As a result the newest, "Yuzvishin", scale will appear besides the Celsius and Kelvin scales. Of course, this nonsense seems funny but it is becoming sad when you find out that this book is "a textbook for higher and secondary educational institutions", self-education courses and proficiency improvement courses". It is sad that two representatives of the world of science, Doctors of Physicomathematical Sciences Prof. V. A. Ivanov and I. D. Sofronov appear in the role of reviewers. Did they read this absurdity?

I don't know where this "textbook" being discussed has been introduced, but at the MIREhA [Moscow State Institute for Radio Engineering, Electronics, and Automation] for about 10 years Mr. Yuzvishin headed the department of informationology and read a two-semester course "The Principles of Informationology". In passing, Doctor of Technical, Physicomathematical, Informationological, and Biological Sciences I. Yuzvishin crippled students of the Moscow Institute of Informationology.

In 2000 a textbook came to light in the I. I. Polzunov Altay State Technical University in Barnaul called "Physics and the Technology of Torsion Radiation. Torsion Technologies". Prof. G. I. Gos'kov of Altay University appears as a co-author of the textbook together with A. Akimov and G. Shipov. Today Mr. Gos'kov is deputy head of the information technologies department of this university. Among his recent "achievements" is the measurement of "energy information radiation", the detection of "bioenergy", and the "charging" of water with the aid of electromagnetic waves, ultrasound, an ordinary book, and hand movements. It is interesting whether the Ministry of Education knows whom Mr. Gos'kov is training for the country.

A year earlier in 1999 the 2nd International Congress of "Bioenergy Information Science" was held in the very same university. The principle organizers, besides the bosses, were the International Academy of Energy Information Sciences and the International Academy of Informatization. Here's what kind of subject matter was offered the participants:

Physics and the Technology of Torsion Fields.

Bioenergy Information Science in Everyday Life, in Manufacturing, and in Healing (Bioenergy Information Healing, Bioenergy Information Science in Architecture and Construction, etc.) Phenomena, Discoveries, and Explorations in the Field of Bioenergyinformatics (Anomalous or PSI Phenomena, Biolocation, UFOlogy, Bioenergy Information Science, and Extraordinary Situations, Bioenergy Information Science and Rehabilitative Medicine, etc).

I should say that Barnaul is far from being the only city where pseudoscientific conferences are being held. Many cities of the country welcome pseudoscience.

A few words now about publications associated with the Russian Academy of Sciences. In 1997 the "Nauka [Science]" Publishing House published a monograph of G. Shipov entitled "The Theory of a Physical Vacuum" on a commercial basis (the reviewers were Doctors of Physicomathematical Sciences A. Rukhadze and R. Kuz'min). Although it received a proper

evaluation in the review of academician V. Rubakov published in "The Successes of the Physical Sciences", all the same the publication of the book caused considerable harm to science. The experienced masters of a swindle even translated it into English. As a result the book has become a unique banner of torsion swindlers. The swindlers who earn their living from so-called "torsion technologies" are little concerned that neither G. Shipov nor A. Akimov has a single publication in any serious refereed journal of physics and that the technologies described in G. Shipov's book do not exist. The fraud literally begins with the first lines. The author states that the book contains lectures that he gave at the Physics Department of MGU [Moscow State University] in 1993 and 1996. This is a lie! In a note the dean's office of the Physics Department it reports that "G. I. Shipov did not give a series of lectures at the MGU Physics Department on 'The Theory of a Physical Vacuum' or any other series of lectures". As has already been noted, the physics community does not like the torsion gentlemen. And all the same they have plenty of supporters. In an overwhelming majority of cases these are people who are quite remote from the fundamental problems of physics.

In 1998 a collection entitled "Chemistry, Technology, and the Industrial Ecology of Non-Organic Compounds" was issued by the Perm State University publishing house. It contains an article by V. F. Panov, A. V. Klyuyev, V. I. Kichigin, and G. V. Khaldeyev, "Torsion Fields and Chemical Processes". The collection was published in the name of the Russian Academy of Sciences and the Science Council for Non-Organic Chemistry of the Ural Branch of the RAN.

In the same year, 1998, a book by Yu. B. Shauba "Current Medical Research by New Physical Methods" was published in Vladivostok in the "Dal'nauka" publishing house in the name of the Russian Academy of Sciences (Far East branch). This work has a quite distant relationship to science. Judge for yourself: here are presented biofields and chakras, and the remote influence on a person of medicines and poisons. Microlepton radiation and torsion fields do not escape attention. I think that the reviewers who let this book come to light ought to be named. They are Doctor of Medical Sciences Yu. V. Kulakov and Doctor of Geological and Mineralogical Sciences B. V. Preobrazhenskiy. Unfortunately, the list of similar books is far from being limited to the three cited.

The Russian Academy of Sciences publishes several popular science journals. There are many outstanding scientists on the editorial councils and editorial boards. However an impression is being formed that they are being used as famous names and do not set the journals' policy in any manner. How can it be explained otherwise that from time to time in these journals there appear articles extolling blatant pseudoscience?

I remember several such cases. The pages of the journal "Nauka v Rossii [Science in Russia]" were offered to Mr. A. Ya. Grabovshchiner to extol so-called quantum medicine, which has nothing in common with science. A strange article, to put it mildly, was published in the journal "Elektronika [Electronics]" dedicated to drawing energy from the ether. In one of the recent issues of the journal "Energiya [Energy]" an article was printed singing the praises of Scottish astrologer Madame Marjorie Orr. A popular science journal actually called for humbly heeding astrological forecasts, rejecting attempts to build a future on the basis of logic, common sense, and scientific forecasts. I add that the newspaper "Poisk [Search]", one of whose founders is the Russian Academy of Sciences, was also notable for having published an article concerning

experiments about so-called alternative vision conducted at MGU. I note that when they showed a girl who saw texts and pictures with her eyes blindfolded to one of the members of our Commission, he tied a mask around her that he had brought with him and all the miraculous effects immediately disappeared.

In recent years pseudoscience has turned into a well-organized force having large financial capabilities. For example, the International Academy of Information Science regularly holds its forum in the State Kremlin Palace. Not a single scientific conference can permit itself anything of the sort. But this is a separate topic and we will not touch on it. We will dwell on a phenomenon which is rare for the time being - the penetration of pseudoscience into scientific conferences. I will cite the most scandalous example. The 2nd International Congress "Weak and Superweak Fields and Radiation in Biology and Medicine" was held in St. Petersburg in July 2000. Evidently the Congress' Organizing Committee did not conduct a selection of the reports presented. Judge for yourself what resulted. I will cite several titles of the reports.

The Biological Field and a Superfluid Physical Vacuum".

"The Effect of 'Vital' Water in Nature and Associated Natural Phenomena". This is what is stated in the report: "It was established that at 2320 the energetics of the water began to increase". The water is "vital", that is, charged up to the present".

"The Mechanism of Biolocational Interactions". Here is what kind of terminology is in this work: "Psychic Operator", "Mental Charging of Water", "Recording of the Charge was Conducted With the Aid of a Biolocational Framework".

"A Vital Substance in Weak Fields". It says in the report: "We assume that living systems are not only nucleic protein structures but also structures using spinor-torsion mechanisms". With the use of multidirectional torsion fields we have successfully modeled the possibility of transmitting the cell culture of conditions reflecting its past and future".

"The Energy Information Theory of Heredity, Mutation, and Morphogenesis". In this report "new scientific fields have been formulated: informational biology, informational genetics, informational medicine, informational physics, and space ecology".

Particularly commercial pseudoscience is also encountered in reports.

"The influence of the "Mediv" applicator on the non-specific resistance of an organism with duodenal ulcers". By the way, expert examination has shown that this empty shell is completely useless.

"An assessment of the influence of biocorrectors on people using a fluorescent visualization method". In the report it talks about a GAMMA-7N instrument to which an article is devoted which gave the name to my book, "Swindlers Posing as Scientists".

But the inclusion in the program of a report entitled "The Essence of the Gravitational Constant" seems especially strange; there is no reference to the theme of the Congress and moreover it is mistaken. This, too, is irresponsibility and connivance.

Some words about the situation with the scientific journals published by the RAN. Alas, here too there is some defect in the work. In 1995 the journal "Biophysics" published an article of A. Ye. Akimov, V. Ya. Tarasenko, and G. I. Shipov entitled "Torsion Fields as a Cosmophysical

Factor". Note that this is the only article about torsion fields which appeared in an RAN journal published not in the ZhEhTF [The Journal of Experimental and Theoretical Physics], where it properly belonged, but in a biophysics journal. Five years later one more article was published in the same journal, this time about pyramids. In 1989 a publication by A. F. Okhatrin came out in the USSR DAN [Proceedings of the Academy of Sciences] presented by academician M. Sadovskiy about the discovery of so-called microleptons. Attempts by corresponding member of the USSR Academy of Sciences Ye. B. Aleksandrov to publish a refutation immediately afterwards were unsuccessful. Not long ago this story "echoed". In spring of last year TIEL, an English firm with Russian roots, tried to get a license to prospect for oil using "microlepton technology" methods. In spite of skepticism by geologists, who stated that there was no oil in the claimed region, the firm insisted on going ahead with the license all the same. Intrigued journalists went to the firm's management. The latter explained that they were searching for oil with the most modern methods. In 1995 Martin Perl received a Nobel Prize for the discovery of the tau lepton. So that's what microleptons are - something close to tau leptons in their properties. Having found out about the story about microleptons M. Perl was indignant. A scandal began. A commission of scientists arose which decided to investigate this story. Robin Marshall, an English physicist from Manchester University and a specialist in the theory of elementary particles, rather quickly found the 1989 USSR DAN publication as the origin of this swindle. R. Marshall's comments about A. Okhatrin's article resounds as follows: "He is either insane or was drunk or is simply perpetrating a fraud". Prof. R. Marshall noted that "the existence of such a license will give them an enormous advantage". As regards the license, in the opinion of a number of members of the commission, "a license for drilling received from the British government could be used as a stamp of approval for marketing the technology in other regions of the world". One can imagine how things would be for our microlepton swindlers if they were already conducting oil and gas exploration in several regions of our country at state expense before receipt of the British license (which they will hardly get now)! Things have come to the point that swindlers have sent a letter to the head of the Russian government, M. M. Kas'yanov, with a proposal to investigate the oil and gas deposits in the Caspian [Sea]. The swindlers are ready to "appropriate" 500-600 million rubles a year. This is the sort of consequences that carelessness by editorial boards can lead to. This story served as a good lesson to us. I don't know about other branches but the Physical Sciences Branch does not let manuscripts go to the DAN without a review process. Not everyone likes this. "The fact that such an authority exists as a Commission to Combat Pseudoscience is a disgrace to the Russian Academy of Sciences. This Commission has one mission - to block the access to science of any new ideas". These words belong to academician M. M. Lavrent'yev. Mikhail Mikhaylovich is a mathematician, but for some reason he thinks that in the field of physics the entire community is not keeping abreast but that he alone is. He is angry at the Commission because for some time they have stopped the publication of his strange articles on physics in the DAN. And although the activity of the chairman of this Commission reminds M. M. Lavrent'yev of the activity of Torquemada, he has obviously overestimated my resources. In the final account, my influence obviously does not extend to the leading physics journals of the world. He could have tried to publish there. So if nothing happens, it won't be the Commission's fault.

And one more academician, Natal'ya Petrovna Bekhtereva, is scaring the people with this terrible Commission through AiF [Argumenty i Fakty (Arguments and Facts)]. "Right now is not a suitable time to express very courageous ideas because in the Academy of Sciences there is a

Commission on Pseudoscience". Why has academician N. P. Bekhtereva suddenly begun to fear the Commission? At the beginning of 2002 a group of authors headed by her published an article in the journal "Fiziologiya Cheloveka [Human Physiology]" entitled "About the So-Called Phenomenon of Direct Viewing". Even the authors themselves noted that this was a particularly preliminary investigation. Experiments were set up so that the possibility of simple peeking was not completely precluded. In such an event it is completely incomprehensible, how could one make dubious statements evoking a protest from any physicist, for example, "alternative viewing is performing with the aid of the skin" or with the aid of a locator [lokatsionnyy mekhanizm]? It is easy to say that there isn't the slightest sense contained in these statements. Meanwhile, the result of this absolutely unconvincing article was an uproar raised in the mass media about a dubious phenomenon presented by the press as a known fact established by academic science. Alas, there were several grounds for the mass media to refer to science this time. Natal'ya Petrovna herself recently stated, "This phenomenon has been thoroughly investigated by us" (AiF, N 1-2, 2003). But how can the authors of the article under discussion state with conviction that "this is a pilot work and a particularly preliminary qualitative investigation not claiming to have detected any quantitative patterns"? Is this really a crude work and also a "thorough investigation"? And does academician N. P. Bekhtereva really think that one unconvincing work is a sufficient basis to send the President of the country a letter with a suggestion about the need to introduce an "alternative viewing" training method in the special services?

As regards Natal'ya Petrovna's fears for "very courageous ideas", then I want to note that not one physicist will regard "skin viewing" as a courageous idea; on the other hand, they would accompany it with another epithet. And the Commission has nothing to do with it here. The article evoked indignation not in the Commission but in the scientific community of the country.

In December 2000 one of the best physics journals in Russia, "Letters to the ZhTF [Journal of Technical Physics]", published an article by V. V. Roshchin and S. M. Godin entitled "An Experimental Investigation of the Physical Effects in a Dynamic Magnetic System". The impression is created that the members of the editorial board did not look at the article, relying on the conclusion of the reviewer. Meanwhile, a casual glance would have been sufficient to understand that it could only have been published in some science fiction almanac. In reality, in a short note one can encounter antigravity (the weight of the apparatus during the experiments fell from 350 to 250 kg), and the observation of "magnetic walls" at a distance of up to 15 meters from the axis of the apparatus without a reduction in the strength of the magnetic field with the distance from the axis, and a number of other wonders.

To the editorial board's credit it needs to be said that it apologized on the pages of their journal to the readers for the publication of this article. And one more small touch about the article in question. It was published in the name of the Institute of High Temperatures; however the latter has no connection with this "research". And there is no such apparatus at the Institute. By the way, such forgeries are a standard practice of pseudoscience.

It is known that science lives and develops according to its inherent ethical standards. Any new effect, any discovery must find first recognition in the scientific community. Therefore the authors of any significant scientific result attempt to publish it in the most prestigious scientific journals (refereed, of course). Publication of initial results in the mass media is considered bad

form. Moreover, an appeal by scientists to the highest echelons of authority with a demand for immediate support for brilliant discoveries which the scientific community does not even suspect seems unacceptable.

A year and a half ago V. Sobolev's group from Volgograd, which right away made seven (!) outstanding "discoveries" among which was a new inexhaustible source of energy, very much like a perpetual motion machine, a magnetic charger, a superconductor based on a low-temperature plasma, etc., turned to the President of the country, to the RF Security Council, to the government, and to a representative of the President. Physical scientists first heard about these sensational "discoveries" at a press conference to which none of them were invited and where they had ended up completely by accident. At this show it turned out that the group had not one scientific publication! It is true that, when replying to a proper question, V. Sobolev declared, "We are preparing articles, we will soon go to scientific journals, and the discussion will begin". A month later Mr. Sobolev had forgotten all about his promise. "To take time to write scientific articles, their review process, and pushing them through means taking much valuable time away from us". I hope that this reply needs no comment.

Several months before the public appearance of V. Sobolev's group the mass media made yet one more "genius" a hero, L. Urutskoyev, who "discovered" a magnetic monopole and the effect of transforming elements, let's say, into gold and platinum. And not long ago in a letter to President V. V. Putin State Duma Deputy B. Ye. Nemtsov reported that L. Urutskoyev had managed to enrich uranium-238 by 50%. I would like to note that the concentration of this isotope in natural uranium without any enrichment is 99.28%. It is unworthy of a former physicist to "dash off" letters without even reading them.

S. Shoygu also displayed concern about L. Urutskoyev by addressing a letter to the RF Security Council in support of L. Urutskoyev's activity. A strange picture is forming. Dozens of qualified physicists of Moscow, Novosibirsk, and St. Petersburg were forced to investigate the "discoveries" of L. Urutskoyev. They had to create a special commission in the Kurchatov Institute and listen to L. Urutskoyev and commission members at the Institute's Science Council. The experts were unanimous: L. Urutskoyev's experiments were faulty. But the latter, enjoying high-level support, changed his story: his correctness had been confirmed at the Joint Nuclear Research Institute [OIYaI] (Dubna) and in the nuclear center at Sarov (the former Arzamas-16). And here the director of the OIYaI, academician V. G. Kadyshchevskiy, had already been forced to state that the OIYaI had no connection with L. Urutskoyev's experiments. It followed from those experiments which, by the way, were conducted at Sarov in the presence of L. Urutskoyev himself, that neither magnetic monopoles nor the transmutation of elements was observed.

This was all reported to the RF Security Council. But one of the high-ranking officials very much wanted to create a new federal program under Mr. L. Urutskoyev. And here the acting chairman of the Security Council, V. Sherstnyuk, distributed a new letter with a demand to conduct an expert analysis not just at the RAN but also at the Ministries of Atomic Energy and Science. This all seems absurd. For these organizations had already clearly expressed themselves clearly and unequivocally. What else was necessary?

There are many volunteers among us to profit at state expense. And until the state decides to put projects in order with expert scientific review we will only watch from the sidelines how budget resources flow into the pockets of the con men and their protectors who hang around science.

The problems of pseudoscience are quite multifaceted and we cannot cover all aspects of this phenomenon. For example, we have left the problem of the export of pseudoscience practically untouched. Nothing has been said about the completely abnormal situation with patent affairs in Russia. But even the facts mentioned in the report are sufficient to understand how dangerous is the phenomenon we are dealing with. We should organize a mass movement against pseudoscience. Branches of the Commission need to appear in the immediate future, at least in the largest cities of the country.

The scientific community is beginning to open its eyes, although slowly. Today we have a sufficient number of qualified volunteer scientists who are ready to work in the Commission. I should note with satisfaction that Ukraine has followed our example. An analogous Commission has been organized there which has taken on itself a mission which includes the struggle against unprincipled advertising in medicine. Contacts have been established with this Commission just as with other international societies of skeptics which conduct educational work with the population of various countries.

If we are to talk of the future, one of the most important tasks is the revival of popular scientific publications. I should note that the Siberian branch of the RAN has already displayed initiative in this matter. In the very near future the first four books will appear on the counters. I would like Moscow, St. Petersburg, and other large cities not to be left out of this undertaking.

A no less important task is the involvement of the Russian Academy of Medical Sciences in the struggle against pseudoscience. The examples cited in the report are convincing evidence that the RAMN simply does not have the right to stand aside.

Up to now the Commission has operated on a volunteer basis. However matters will go considerably better if the Presidium of the RAN agrees [to cover] small expenses. The Commission should have its own facilities in the RAN Presidium, means of communication, 2-3 staff members, and minimal financing. As regards the Commission members, they will work on a volunteer basis, as before.

Today pseudoscience has enormous resources. It is absolutely clear that it is an unrealistic task to completely eliminate it. However if our plans are successfully realized, pseudoscience will have very great difficulty, however, as well as the unprincipled officials who are building their fortune in collusion with it.

Academician E. P. Kruglyakov

Translated by G. Goldberg

Torsion Fields

http://www.geocities.co.jp/Technopolis/1228/torsion_field/doc17/doc17.html

Experimental Investigation of New Long-Range Actions.

Analytical Review

Yu.V.Nachalov & A.N.Sokolov

In this article the experimental results obtained by various researchers in the period 1950-1990 are discussed. Since all experimental results under consideration could not be explained in the framework of existing theories, these results were placed under the category of "experimentally-observed phenomena." It is shown that all of the experiments considered here have demonstrated a manifestation of spin-torsion interactions.

Over the course of the XX century, various investigations in different countries, representing a variety of professional interests, repeatedly reported the discovery of unusual phenomena that could not be explained in the framework of existing theories. Since these authors could not understand the physics of the observed phenomena, they were forced to give their own names to the fields, emanations and energies responsible for the creation of these phenomena. For instance, N.A.Kozyrev's "time emanation" [1-4], W.Reich's "O-emanation" or "orgone" [5], M.R.Blondlot's "N-emanation" [6], I.M.Shakhparonov's "Mon-emanation", A.G.Gurvich's "mitogenetic emanation" [7], A.L.Chizhevsky's "Z-emanation", A.I.Veinik's "chronal field" [8,9], "M-field" [10], A.A.Deev's "D-field", Yu.V.Tszyan Kanchzhen's "biofield", H.Moriyama's "X-agent" [11], V.V.Lensky's "multipolar energy" [12], "radiesthesiatic emanation" [13], "shape power", "empty waves" [19], "pseudomagnetism" [20], H.A.Nieper's "gravity field energy" [21], T.T.Brown's "electrogravitation" [22], "fifth force" [23], "antigravitation" [24], "free energy". This list can be easily continued.

As the result of the theoretical and experimental investigations conducted beginning in the mid 60s, for instance by the V.G.Baryshevsky [25-28] group and G.V.Skrotsky [20] in the USSR, by the A.Abragam and M.Goldman group in France [29-31] and others, spin-spin interactions of spin-polarized particles with spin-polarized nuclei targets, and the distant correlations of nuclei spins' states were discovered and investigated. These interactions were called "pseudomagnetism" [20]. In one case, the "pseudomagnetic field" was interpreted as exchange Coulomb interaction, and in other cases, as nucleus interactions. During this period, an opinion existed that known spin-spin interactions had another nature [31]. Thus a clear understanding of the mechanism of spin-spin interactions was absent. Later, major investigations of spin-spin interactions of ensembles of particles were conducted [34-38]. Distant spin-spin interactions were theoretically and experimentally examined in the investigations of nuclear spin waves and nuclear magnetic resonance [34-40].

In 1977 A.C.Tam and W.Happer showed experimentally that two circularly-polarized laser beams attract or repel depending on mutual orientation of their circular polarization. If the direction of rotation of polarization of the two laser beams is similar, then these beams attract, and if the rotation of polarization is opposite, then they repel [41]. These results collided with quantum electrodynamics and could not be explained.

In the mid 80s the A.D.Krisch group was experimentally investigating the interaction process between spin-polarized protons and a spin-polarized proton target [32,33]. It was found that the observed process of spin-spin interaction could not be described in the framework of the quark model. The obtained results collided with quantum chromodynamics and could not be explained. Analogous results were observed in the USSR in experiments conducted at Dubna and Protvino [42].

During this time, theoretical results were obtained that let spin-spin interactions be considered as the manifestation of an independent fundamental characteristic of matter. These investigations showed that numerous phenomena which were hard or impossible to explain, had a rigorous theoretical interpretation in the framework of torsion field theory. The convincing theoretical results which allowed understanding of the mechanism of Tam-Happer effect were first obtained by P.C.Naik and T.Pradhan in the USA [43] and then by P.I.Pronin, Yu.N.Obukhov and I.V.Yakushin in the USSR. Later De Sabbata and C.Sivaram in Italy [44] and then E.A.Gubarev, A.N.Sidorov and G.I.Shipov in Russia [45] with the use of torsion theories, gave a theoretical interpretation of experimental results obtained by A.D.Krish [32,33] and others [42].

It is useful to note experiments demonstrating effects which were usually interpreted as the manifestation of the so called "fifth force" [23]. Probably the first researcher to encounter the "fifth force" in the end of XIX century was a professor of Russian physical-chemical society N.P.Myshkin [46]. In 1990, De Sabbata and C.Sivaram demonstrated that phenomena connected with the "fifth force" can be interpreted as manifestation of torsion [47].

It is also important to note the experiments which demonstrate anomalies connected with gyroscopes and gyroscopic systems. Probably the first researcher to establish that the behaviour of gyroscopic systems cannot be explained in the framework of Newton's mechanics was Russian astrophysicist N.A.Kozyrev. In the 50s, N.A.Kozyrev conducted a large series of experiments with gyroscopes and found that variations of the gyroscope's weight exists depending on the angular velocity and the direction of rotation [1,2]. Later, Kozyrev's results were completely confirmed by a member of the Belarus Academy of Sciences A.I.Veinik, who in the 60s - 80s conducted a major research of the anomalies demonstrated by gyroscopic systems [8]. In 1989 H.Hayasaka and S. Takeuchi published results of their experiments in which the fall-time of freely falling spinning gyroscope was measured. These experiments showed that the fall-time varies depending on the angular velocity and the direction of rotation [48]. The unusual behaviour of spinning gyroscopes was observed by S.M.Polyakov in the USSR [24] and many others, and basically was interpreted as a manifestation of antigravitation. In 1991, G.I.Shipov showed that the violation of Newton's mechanics demonstrated by gyroscopic systems was caused by the appearance of torsion fields generated by spinning masses [49].

From the mid-50s to the late 70s, N.A.Kozyrev (with V.V.Nasonov) conducted astronomical observations using a receiving system of a new type. When the telescope was directed at a certain star, the detector (designed by N.A.Kozyrev and V. V.Nasonov) positioned within the telescope registered the incoming signal even if the main mirror of the telescope was shielded by metal screens. This fact indicated that electromagnetic waves (light) had some component that could not be shielded by metal screens. When the telescope was directed not at the visible position but at the *true* position of a star, the detector then registered an incoming signal that was much stronger. The detection of the true positions of different stars could be interpreted only as detection of star radiation that had velocities billions of times greater than the speed of light. N.A.Kozyrev also found that the detector registered an incoming signal when the telescope was directed at a position symmetrical to the visible position of a star relative to its true position. This fact was interpreted as a detection of the *future* positions of stars [3,4].

In the late 80s to early 90s, astronomical observations using the Kozyrev-type detector were successfully conducted by a group of academicians at the Russian Academy of Sciences M.M.Lavrentiev. While the sky was scanned by the shielded telescope with the detector inside, it registered signals coming from the visible position of each star, the true position, and also a position symmetrical to the visible position of a star relative to its true position. M.M.Lavrentiev could not give a theoretical interpretation to these facts [50-52]. In 1992 these experiments were successfully repeated by the A.E.Akimov group at the Main astronomical observatory of the Ukraine Academy of Sciences (Kiev) and at the Crimean astrophysical observatory (Nauchnyi). The obtained results were interpreted as detection of torsion waves. (As is well known, stars are objects with large angular momentum.) [53-54]. It should be noted that the fact of detection of future star positions has also been given a rigorous theoretical interpretation. In the framework of G.I.Shipov's "Physical vacuum theory" it is shown that torsion fields can propagate not only in the future but in the past as well [55]. There exists a fundamental (theoretical and experimental) reason to suppose that various psychophysical phenomena (e.g. precognition) are connected with certain manifestations of torsion fields. (The connection of psychophysics phenomena with torsion fields' manifestations was discussed in [56,57].)

The concept of torsion fields is not new. Torsion field theory is a trend in theoretical physics dating back to 1913. As is well known in GR, A.Einstein showed the existence of a close interconnection between gravitation and the curvature of space-time. About then E.Cartan showed that a connection may exist between some physical values and another geometric abstraction - torsion [67]. E.Cartan performed the first theoretical works devoted to a theory of gravitation containing torsion, but at the early stages, Cartan's gravitation theory never obtained support, since spin was not yet discovered at that time. Cartan was the first to point to the possibility of the existence of fields generated by the spin angular momentum density.

In the late 50s - late 60s, attempts to complement Einstein's gravitation theory with torsion were made. The first such attempts were made by T.W.Kibble [58] and D.W.Sciama [59]. But the explosive rise of publications devoted to torsion only occurred after the first (and sensational) torsion effect was calculated. In the works of A.Trautman and W.Kopczynski, it was persuasively demonstrated that the torsion of space-time can eliminate the cosmological singularities in non-stationary models of the Universe [60-62]. After the works of Trautman and Kopczynski, hundreds of works devoted to the theory of gravitation with torsion were published

in a short period of time. The so called Einstein-Cartan theory (ECT) (sometimes -Sciama-Kibble is added) became the best known [63-65].

In the framework of ECT, spin-torsion interaction is practically a contact spin-spin interaction, and the torsion of space-time does not propagate in this theory. In ECT, the constant of spin-torsion interactions is proportionate to the product of the gravitational constant G and Planck's constant $\hbar$. Thus in ECT the constant of spin-torsion interactions is approximately 27 orders of magnitude weaker than the constant of gravitation interactions. Owing to the above, many authors have repeatedly stated that experimentally observed phenomena cannot be explained by torsion theories, since torsion effects cannot be observed. But as is well known to the experts, this conclusion holds true only for those theories which consider the torsion field to be a static field which cannot propagate (e.g. ECT). After ECT, which describes torsion fields generated by spinning objects without propagation, a large number of non-linear torsion theories appeared. These theories operated with spinning sources having radiation. It was demonstrated that the Lagrangian of a spinning source having radiation can contain a large number of terms with constants that do not depend on G or $\hbar$. Thus the constant of spin-torsion interactions can be a significant value according to these theories. For instance, according to G.I.Shipov's torsion theory [55,66] the constant of spin-torsion interactions is valued at no less than $10^{-5} - 10^{-6}$. It should be noted that the correctness of this evaluation has been confirmed in various experiments (e.g. [1-4,8,9]).

As was already mentioned, E.Cartan was the first to theoretically investigate the physical properties of fields generated by the spin angular momentum density. The phenomena presented in the experimental investigations of gyroscopic systems appeared to be the natural manifestation of torsion fields. Probably the first researchers to interpret the observed "anomalous" variations in gyroscope weight as a manifestation of torsion fields generated by spinning gyroscope, were H.Hayasaka and S.Takeuchi [48]. It is important to note the fact that in order to obtain the effect, the gyroscope must be subjected to non-stationary rotation [49]. For instance, N.A.Kozyrev [2] and A.I.Veinik [8] employed special vibrations of the gyroscope, and in H.Hayasaka's experiments, free-falling gyroscopes were used [48]. This important condition was not taken into consideration by those researchers who declared the absence of any weight variation in their experiments.

Torsion fields are generated by the classical spin [73,74] or by the spin angular momentum density (on a macroscopic level). Torsion fields' characteristics differ substantially from the characteristics of electromagnetic and gravitation fields. Torsion fields have axial symmetry, unlike electromagnetic and gravitation fields that have central symmetry. There exist both right and left torsion fields (depending on the classical spin orientation or rotational orientation). Fig.1 depicts a diagram of the torsion field generated by a mechanically rotated object (e.g. gyroscope) *(at present fig.1 is unavailable)*. If the rotation (including classical spin) is stationary (i.e. the angular velocity is constant; the rotating mass is distributed uniformly relative to the rotation axis; the precession and nutation are absent, etc.), then this object generates a static torsion field. The static torsion field exists in the region of space within a certain distance from the source. If rotation is non-stationary, then this object generates propagating torsion radiation (torsion waves).

Torsion fields transmit information without transmitting energy, and they propagate through physical media without interacting (in traditional sense) with this media. But propagating torsion fields alter the spin state of physical media. Thus torsion fields can be detected by various types of detector. Torsion fields cannot be shielded by most materials, but they can be shielded by materials having certain spin-structures [55,75]. The lower bound of torsion signal velocity is estimated at $10^9 c$, where c is the velocity of light. This is due to the fact that torsion fields are identical to the transverse spin polarization of the physical vacuum [75].

It should be noted that the spatial configuration of the torsion field generated by a spinning particle differs from the spatial structure of an "artificially" rotated object (e.g. gyroscope). A diagram of the torsion field generated by a spinning particle is presented on fig.2 (*at present fig.2 is unavailable*).

Torsion fields are generated not only by a single spinning particle, but also by an ensemble of particles as well. This situation is similar to electricity, where we often encounter the collective electric fields generated by the ensembles of electric charges (nuclei, atoms, charged bodies, etc.). Thus any nuclear spin-polarized target is a source of a torsion field. As was mentioned already, this fact was repeatedly observed in many experiments, and since analogous spins attract, while opposite spins repel [55], then the interaction of a spin-polarized particle with a spin-polarized target nucleus results in the appearance of "anomalous" forces which depend on mutual spin orientation of the particle and the target (e.g. A.D.Krisch experiments [32,33]).

Since all substances (except amorphous materials) have their own stereochemistry which determines not only the location of atoms in molecules, but also determines their mutual spin orientation, then the superposition of the torsion fields generated by the atomic and nuclear spins of each molecule determines the intensity of the torsion field in the space surrounding each molecule. The superposition of all these torsion fields determines the intensity and spatial configuration of the characteristic torsion field for that substance. Thus each substance possesses its own characteristic torsion field. Each physical object in living or non-living nature possesses its own characteristic torsion field. The torsion fields of any object can be detected by various methods [1-4,8,9]. Torsion fields can be observed visually by the Kirlian method [17]. (It should be noted that the torsion fields of various objects also can be visually observed by "psychics". This is usually interpreted as "aura" observation.)

The property which is open to influence by torsion fields is spin. Thus the structure of the torsion field of every physical object can be altered by the influence of an external torsion field. As a result of such an influence, the new configuration of the torsion field will be fixed as a metastable state (as a transverse spin polarization state,) and will remain intact even after the source of the external torsion field is moved to another region of space. Thus torsion fields of certain spatial configurations can be "recorded" on any physical object. This fact was repeatedly observed by many researchers (e.g. [1,8,9,14,76]).

The magnetization of ferromagnets results in the appearance of a collective magnetic field. But as a matter of fact, the sequencing of the orientation of magnetic moments automatically results in a sequencing of classical spins which are generated by the motion of electrons in circular molecular currents. So, the magnetization of ferromagnets results not only in the appearance of a

collective magnetic field, but in appearance of a collective torsion field as well. Thus any permanent magnet possesses its own torsion field. This fact was first experimentally discovered by A.I.Veinik [8,9]. Fig.3 is a diagram of the torsion field of permanent magnet.

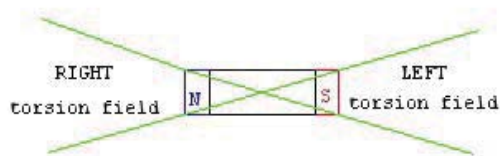


Figure 3.

Since any physical object possess its own torsion field, then the torsion field of permanent magnet is able to affect any physical object. Understanding this important property of magnetic fields allows us to understand a variety of phenomena, for instance the phenomenon known as "magnetization of water," which consists of changing the biological activity of water (including distilled water) by subjecting it to the influence of a magnet. Since the distilled water is diamagnetic, then the process of influencing it with a magnetic field lacks sense from a traditional point of view. But the "magnetization of water" effect can be clearly detected by various methods [8]. In this case the effect is caused not by a magnetic field but by a torsion field which affects the torsion field of water.

The following fundamentally important fact should be emphasized. In the framework of the theory of electro-torsion interactions [66], it is shown that if an electrostatic or electromagnetic field exists in some region of space, then there *always* exists a torsion field in that region of space. Electrostatic or electromagnetic fields without a torsion component do not exist. This was shown rigorously by G.I.Shipov [55,66]. Strong torsion fields are generated by high electrical potentials and by devices having organized circular or spiral electromagnetic processes. (Probably the first researcher to investigate the torsion fields created by these types of generators was Nikola Tesla. In Russia, similar results were obtained by S.V.Avramenko, G.F.Ignatjev and others.)

The principles considered above allow us to classify three types of torsion generators. The first type employs materials (objects) having specially organized spin polarization (e.g. permanent magnets). In the second type of torsion generator, the torsion component of electromagnetic or electrostatic field is employed (e.g. generators created by S.V.Avramenko, G.F.Ignatjev, G.A.Sergejev, S.N.Tarakhtiy and many others). The third type of torsion generator employs a specially organized rotation of a material substance: e.g. a variety of generators created by A.I.Veinik [8]; K.N.Perebeinos' generators with mechanically rotating masses [68]; and V.M.Yurovitsky's generators created based upon the rotation of magnetic fields (magnets). V.M.Yurovitsky was the first to point out that many phenomena could be explained as a result of a manifestation of long-range fields generated by classical spin or spin angular momentum

density [69]. Later generators based on mechanically rotating magnets were developed by V.V.Bobyry and many others. As a result of a series of experiments conducted in the Institute of Material Research ("Institut problem materialovedeniya" in Russian) (Kiev, Ukraine) it was established that torsion radiation produced by this sort of generator is able to alter the inner structure of any substance (its spin structure). It was also established that an identical alteration of the structure of various substances can be achieved by "sensitives" ("psychics,") and could not be achieved by the use of other known technologies [70].

There exists a fourth type of torsion generator. Torsion fields can be generated as the result of a distortion of the geometry of the physical vacuum. Every object having a certain surface geometry will simultaneously generate left and right torsion fields of a certain configuration depending on the geometry of the object. This fact can be detected by various types of physical, chemical and biological indicators. The unusual effects demonstrated by pyramids, cones, cylinders, flat triangles, etc. were repeatedly observed by many researchers in different countries. Different researchers usually have given their own names to the observed effects: for instance, "radiesthesiometric radiation" [13], "cellular and hollow structures effect" [14], "shape power", "pyramid power", etc. In the USSR, the effects demonstrated by objects with various geometry have been investigated by A.I.Veinik [8], V.S.Grebennikov [14], Yu.V.Tsyzan Kanchzhen, I.M.Shakhparonov, A.A.Beridze-Stakhovsky and others.

In the mid 80s, V.S.Grebennikov found that the empty honeycomb of certain bees could have an influence upon any biological object: from microorganisms to human beings. The affected person basically felt sickness, illusions of falling, flying, etc [14]. The observed influence could not be shielded. As the result of the conducted experiments, it was determined that the effect was caused by the shape (form) of bee honeycomb. The understanding of this fact allowed the development of various types of devices having certain geometric proportions that demonstrated the same effects. V.S.Grebennikov has interpreted the discovered effect as "resonance interactions" between an organism and the objects of a special shape.

In the late 80s, an experimental investigation of the torsion fields generated by objects having various surface geometries was conducted by the A.E.Akimov group at the Physics Institute of the Ukraine Academy of Sciences and at Chernovitsky University. In particular, the influence of torsion fields generated by cones of different sizes and proportions upon various processes was investigated. It was experimentally established that objects having geometrical sizes that obey the rule of "golden section" (1:0,618) can be considered as passive torsion generators [71]. Fig.4 depicts the diagram of the torsion field generated by a cone. The points that divide the cone's height in 3 equal parts (points B and C on fig.4) correspond to the maximum strength of a left torsion field inside the cone.

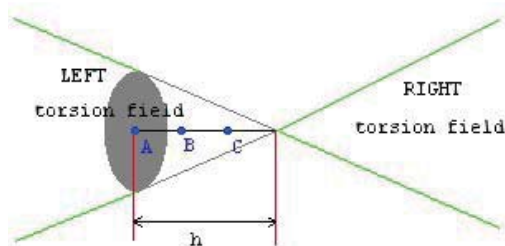


Figure 4.

As is well known to experts in meditation, the shape of the building plays an important role in the process of meditation. Thus the spires and domes of churches and temples (as well as pyramids in Egypt and other countries) should be considered as so called passive torsion generators. The torsion fields of a meditating person can be significantly magnified if the meditation takes place in a building having particular geometric proportions. This fact is employed in the generators developed by A.A.Beridze-Stakhovsky. Over the course of the latter 30 years, torsion generators based upon the shape effect were developed by many specialists.

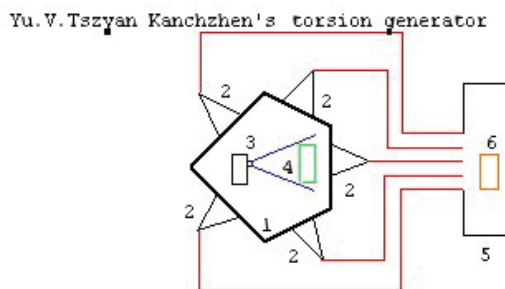


Figure 5.

The fifth type of torsion generator employs a combination of the principles described above. For instance, a combination of high-frequency electromagnetic oscillations and topological effect (shape effect) is used in the generators developed by Yu.V.Tszyan Kanchzhen. (The operation of his devices was interpreted as "high-frequency bio-communication".) Fig.5 shows the diagram of Tszyan Kanchzhen's torsion generator. The object 6 (e.g. a hen) is placed into the receiver-enclosure 5. Another object 4 (e.g. a duck) is placed into the transmitter-enclosure. The transmitter-enclosure is a three-dimensional shape consisting of pentagon 1. Cones 2 are placed on the sides of these pentagons. The object 4 is subjected to the influence of a generator of high-frequency (~ 11 GHz) electromagnetic oscillations 3. The torsion component of these EM oscillations excites the torsion field of object 4. This torsion field is also intensified by the topological effect of 1,2. The excited torsion field is concentrated at the tops of the cones 2 and then is directed to the receiver-enclosure 5. As a rule, a several-day stay of objects 4 and 6 in them resulted in following. If a hen is placed in the receiver-enclosure and a duck is placed in the

transmitter-enclosure, then a hen gradually starts to look like a duck. (For instance, a hen gained duck webs and etc.)

An analogous effect was discovered in the 60s by the V.P.Kaznacheev group. Their research was connected with theoretical and experimental investigations that were conducted in the 20s by A.G.Gurvich. As is well known to biophysics experts, in the 20s A.G.Gurvich experimentally discovered the super-weak radiation of cells that has been called "mitogenetic radiation". A.G.Gurvich has found that mitogenetic radiation of one cellular culture was able to stimulate or to suppress the vital activity of another cellular culture [7]. In the 60s, the V.P.Kaznacheev group conducted a series of experiments using the following scheme [15]. An infected cellular culture was encapsulated in an airtight enclosure. Another cellular culture that was intact (not infected) was encapsulated in another sealed enclosure. Then the two enclosures were attached together so that optical contact alone (e.g. a glass or quartz plate) could exist between the two enclosures. The airtight seals of both enclosures remained intact. The degradation of the infected cellular culture was observed. After a certain period of time, the analogous process started in the other enclosure (i.e. the cells in the intact enclosure became infected in spite of the sealing of both enclosures). Many different cell types were used in various experiments, including cells of the human organism. In 1973 this effect was announced as the discovery of "remote intercellular interactions in the system of two cultures" [16].

V.P.Kaznacheev has used an electromagnetic concept for the interpretation of the observed phenomenon (as well as A.G.Gurvich and Yu.V.Tszyan Kanchzhen). But in other experiments conducted by several research groups, it was established that the main factor in Kaznacheev's effect (as well as in A.G.Gurvich's "mitogenetic radiation" and in Yu.V.Tszyan Kanchzhen's effect) is the intercellular interactions created by means of the torsion fields of cells. In particular, this conclusion was confirmed in the experiments conducted by the L.N.Lupichev group in the late 80s [72]. In these experiments, the distant influence of various chemical substances on different cells was investigated. It was established that it is possible to create conditions where the influence can be detected even if the chemical substance is shielded by metal screens. Thus the main factor in the observed effect had a non-electromagnetic nature. The second important confirmation of the torsion nature of the detected interactions was the fact that screening by aluminum was efficient (while others were not). (It should be noted that torsion fields in some cases can be screened by aluminum.) This fact was first discovered by N.A.Kozyrev [1] and later it was confirmed repeatedly by many researchers. The possibility of reflecting torsion waves by a mirror with aluminum coating is responsible for the possibility of reflecting torsion waves by the mirrors of telescope (even if those mirrors are shielded by various screens) [3, 50-54].)

Over the course of the latter 30 years, various devices that could be seen as torsion generators were patented in many countries (e.g.[77-81]). As a rule no theoretical interpretation of their work was given. For example, devices which employ a combination of topological effects (fourth type of torsion generator) and an intense electric field (second type of torsion generator) is described in the French patent [77]. The construction of the described devices is similar to Yu.V. Tszyan Kanchzhen's generator. According to [77], 2 pairs of electrodes having a voltage between 60-300 kV are connected to a 16-sided prism. On one part of its sides the cones are placed. As the authors of [77] claim, this generator reduces gravitation, accelerates the speed of

chemical reactions, etc. Since the generation of static torsion fields results in transverse spin polarization of the physical vacuum that can be retained as metastable state, then many effects were observed up to four days after the generator was turned off. The analogous principle is employed in one of A.I.Veinik's generators [8]. The developed device has demonstrated various physiological effects. The influence remained even when the generator was turned off and moved to another area of space. A number of generators using the combination of topological effects and electromagnetic fields were developed by I.M.Shakhparonov and others.

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Torsion Fields

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Theoretical Basics of Experimental Phenomena.

Yu.V.Nachalov

Over the course of latter decades, tens of unexplainable microscopic and macroscopic effects in natural sciences and especially in physics and biology have been revealed and investigated. It should be emphasized that a large part of these phenomena were demonstrated by objects having spin or angular momentum.

Probably the first researcher who experimentally detected the unusual effects associated with **torsion** was a professor of the Russian physical-chemical society, N.P.Myshkin, who at the end of the nineteenth century conducted a series of experiments using scales [1]. These experiments were successfully repeated in the 1960s by professor N.A.Kozyrev and V.V.Nasonov and later by V.S.Belyaev, S.P.Mikhailov, A.G.Parkhomov and others.

In the 1940s, the soviet astrophysicist N.A.Kozyrev proposed that the rotation of stars was connected with their energy output. According to the theory developed by N.A.Kozyrev, *time* and *rotation* are closely interconnected. In order to verify his theory, N.A.Kozyrev conducted a series of experiments with spinning gyroscopes. The goal of these experiments was to make a measurement of the forces arising while the gyroscope was spinning. N.A.Kozyrev detected that the weight of the spinning gyroscope changes slightly depending on the angular velocity and the direction of rotation. The effect he discovered was not large, but the nature of the arising forces could not be explained by existing theories. N.A.Kozyrev explained the observed effect as being the manifestation of some "physical properties of time" [2,3].

In the 1970s, in order to verify N.A.Kozyrev's theory, a major research of gyroscopes and gyroscopic systems was conducted by a member of Belarus Academy of Sciences, professor A.I.Veinik. The effect discovered earlier by N.A.Kozyrev was completely confirmed, but in order to explain the observed results, A.I.Veinik developed his own theory. According to this

theory, every substance has its own "chronal charge" defined by the quantity of "chronal" particles which were named "chronons". A.I.Veinik supposed that while the object is spinning, "chronons" are interacting with other "chronons" that surround this object and therefore the weight of the object changes. According to A.I.Veinik's theory, "chronons" generate the so called "chronal" field. A.I.Veinik found experimentally that strong "chronal" fields can be generated by spinning masses. A.I.Veinik measured some properties of "chronal" fields and found that two types of "chronons" exist ("plus" and "minus" chronons). It is important to emphasize that A.I.Veinik concluded that the sign of the "chronon" depended on orientation of its spin [4].

Reported observations of gyroscope weight variations have been made repeatedly by various researchers in many countries (e.g.[5-7]). Almost in all cases the observed effects were interpreted as the manifestation of antigravitation. In 1989, H.Hayasaka and S.Takeuchi conducted a series of experiments in which the fall-time of a freely-falling spinning gyroscope was measured. They found that the fall-time varied depending on the angular velocity and the direction of rotation. H.Hayasaka and S.Takeuchi have attempted to explain the effect of antigravitation as the manifestation of **torsion** fields generated by the spinning gyroscope [6].

It should be noted that reports stating that the weight of a spinning gyroscope does not change are also known. Analysis of these reports shows that experimenters have simply not fulfilled the conditions required to achieve the expected effect. N.A.Kozyrev, A.I.Veinik and other researchers who observed the change of weight emphasized repeatedly that the rotation must be non-stationary. For instance, N.A.Kozyrev and A.I.Veinik used special vibrations, and H.Hayasaka experimented with moving (falling) gyroscopes.

From the mid-50s to the late 70s, professor N.A.Kozyrev (with V.V.Nasonov) conducted astronomical observations using a receiving system of a new type. When the telescope was directed at a certain star, the detector (designed by N.A.Kozyrev and V.V.Nasonov) positioned within the telescope registered the incoming signal even if the main mirror of the telescope was shielded by metal screens. This fact indicated that electromagnetic waves (light) had some component that could not be shielded by metal screens. When the telescope was directed not at the visible but at the *true* position of a star, the detector then registered an incoming signal that was much stronger. The registration of the true positions of different stars could be interpreted only as registration of star radiation that had velocities billions of times greater than the speed of light. N.A.Kozyrev also found that the detector registered an incoming signal when the telescope was directed at a position symmetrical to the visible position of a star relative to its true position. This fact was interpreted as a detection of the *future* positions of stars [8].

In the late 1980s to early 90s, astronomical observations using the Kozyrev-type detector were successfully conducted by a group of academics at the Russian Academy of Sciences under M.M.Lavrentiev. While the sky was scanned by the shielded telescope with the detector inside, it registered signals coming from the visible position of each star, the true position, and also the position symmetrical to the visible position of a star relative to its true position. M.M.Lavrentiev could not give a theoretical interpretation to these facts [9-11]. In 1992 these experiments were successfully repeated by the group of A.E.Akimov at the Main astronomical observatory of the Ukraine Academy of Sciences (Kiev,) and at the Crimean astrophysical observatory (Nauchnyi).

The obtained results were interpreted as registration of **torsion** waves. (As is well known, stars are objects with large angular momentum.) [12,13].

In the course of the latter 50 years there have been numerous reports on anomalous behaviour of spin-polarized particles. In the USSR the groups under V.G.Baryshevsky and M.I.Podgoretsky experimentally determined that when neutrons are passing through spin-polarized targets, a precession of neutrons arises. The measured magnitude of precession has shown that the field which caused that precession has to be thousands of times stronger than the magnetic field of the target's nuclei [14]. In the USA the A.D.Krisch group repeatedly observed anomalies produced by spin-polarized protons [15]. In France, in experiments with ^3He , it was found that the heat-conduction of helium unusually depends on the state of nuclei spins [16]. (This list can be easily continued.)

In 1977, A.C.Tam and W.Happer experimentally discovered that two parallel circularly polarized laser beams mutually attract or repel depending on mutual orientation of their circular polarization [17].

In 1966 the K.N.Perebeynos group demonstrated an experimental communication system in which the transmitter and the receiver were constructed as rotating masses. Transmitted information could be received even when the receiver was shielded by massive screens. The method applied was interpreted as the generation and reception of gravitational waves [18].

In spite of the seeming diversity, all of the experiments considered above have a certain resemblance: all of the mentioned effects are demonstrated by objects with spin or angular momentum. As was already noted, probably the first experimenter who made a major investigation of effects demonstrated by spinning objects was N.A.Kozyrev. It is also necessary to note A.I.Veinik's research work. A.I.Veinik made tens of types of generators based on rotating masses. These generators could change their weight (*Very slightly*. If a mass ~ 1 kg is rotating with the angular velocity ~ 20.000 rpm then the "inner force" $\sim 30 \cdot 10^{-5}$ N.), and their "chronal" fields could affect practically all physical and biological objects and could not be shielded by "usual" screens [4]. It is also useful to note V.M.Yurovitsky's patented generators which are based on spinning magnets. V.M.Yurovitsky was the first who pointed out that many phenomena could be explained as a result of manifestation of long-range fields generated by spin or angular momentum density. Later generators based on mechanically rotating magnets were developed by V.V.Bobyry and many others. As a result of a series of experiments conducted in the Institute of Material Research ("Institut problem materialovedeniya" in russian) (Kiev, Ukraine) it was established that the emanation produced by this sort of generator is able to change the inner structure of any substance (it's spin structure). It was also established that an identical change of the structure of various substances can be achieved by "sensitives" ("psychics,") and could not be achieved by the use of other known technologies. The emanations of the developed generators was interpreted as **torsion** radiation [19].

In other series of experiments conducted in the Institute of Material Research, the influence of the **torsion** radiation on various photographs was investigated. It was established that by the use of this method it is possible to transmit information from one point of space to another [20]. (Probably the first researchers to apply this method were Albert Abrams, Curtis Upton, William

Knuth, and George De La Warr.) The experimental research conducted in the Institute of Material research and at other scientific organizations was managed by the Center of non-conventional technologies under the USSR Science and Technics State Committee. These investigations were based on the so called "Theory of physical vacuum" developed by russian physicist G.I.Shipov.

G.I.Shipov used a geometry of absolute parallelism (A_4) with an additional 6 rotational coordinates, and on the strict level it showed that the movement of any object should be described by 10 movement equations but not by 4 equations as it is in Einstein's GR. From Shipov's vacuum equations, every known fundamental physical equation (Einstein's, Young-Mills', Heisenberg's, etc.) can be deduced in completely geometrised form. G.I.Shipov showed that besides the two known long-range physical fields - electromagnetic and gravitational - there exists third long-range field possessing significantly richer properties: the **torsion** field. The **torsion** field is an extremely unusual entity. First of all, the upper limit for the speed of **torsion** waves is estimated to be not less than $10^9 c$, where c is the speed of light. Secondly, **torsion** fields are able to propagate in a region of space which is not limited by the light cone. That means that **torsion** fields are able to propagate not only in the future but in the past as well. Thirdly, **torsion** fields transmit information without transmitting energy. Fourth - **torsion** fields are not required to follow the superposition principle [21].

Torsion fields are generated by spin (considering classical spin [22,23]) or by angular momentum. There exist both right and left **torsion** fields (depending on the spin orientation). Since all substances (except amorphous materials) have their own stereochemistry which determines not only the location of atoms in molecules but also determines their mutual spin orientation, then the superposition of **torsion** fields generated by the atomic and nuclear spins of each molecule determines the intensity of **torsion** field in the space surrounding each molecule. The superposition of all these **torsion** fields determines the intensity and spatial configuration of the characteristic **torsion** field of that substance. Thus each substance possess its own characteristic **torsion** field.

The property which is open to influence by **torsion** fields is spin. (We should note that the spin-**torsion** interaction constant is equal to $10^{-5} - 10^{-6}$. This constant is less than the constant of electromagnetic interactions, yet much greater than the constant of gravitational interactions.) Thus the structure of the **torsion** field of every object can be changed by the influence of an external **torsion** field. As a result of such an influence, the new configuration of the **torsion** field will be fixed as a metastable state (as a polarized state) and will remain intact even after the source of the external **torsion** field is moved to another area of space. Thus **torsion** fields of certain spatial configuration can be "recorded" on any physical or biological object.

Since every permanent magnet possess not only oriented magnetic moments but also classical spins orientation as well, then every permanent magnet possess it's own **torsion** field. (This fact was first experimentally discovered by A.I.Veinik.) Understanding this important property of magnetic fields allows us to understand a variety of phenomena, for instance the phenomenon known as "magnetization of water".

The following fundamentally important fact should be emphasized. In the framework of the theory of electro-**torsion** interactions, it is shown that if electrostatic or electromagnetic fields exist in some region of space, then there *always* exists **torsion** fields in that region of space. Electrostatic or electromagnetic fields without a **torsion** component do not exist. On the strict level this is shown by G.I.Shipov [24]. Strong **torsion** fields are generated by high electrical potentials and by devices with organized circular or spiral electromagnetic processes. (Probably the first researcher to investigate **torsion** fields by this type of generators was Nikola Tesla. In Russia, similar results were obtained by S.V.Avramenko and others.)

Torsion fields can be generated as the result of the distortion of geometry of the physical vacuum. Every object with a certain surface geometry will simultaneously generate left and right **torsion** fields of a certain configuration depending on the geometry of the object. This fact can be detected by various types of physical, chemical and biological indicators. This type of manifestation of the **torsion** field was repeatedly observed by numerous researchers: A.I.Veinik, Yu.V.Tsyzan **Kanchzhen**, A.A.Beridze-Stakhovsky, V.S.Grebennikov, I.M.Shakhparonov and many others in Russia and various researchers in other countries [25-31]. Later an experimental investigation of the **torsion** fields generated by objects with different geometry of surface was conducted by the group of A.E.Akimov at the Physics Institute of the Ukraine Academy of Sciences and at Chernovitsky University [32].

Another kind of **torsion** generator employs a combination of the above described principles. For instance, the combination of high-frequency electromagnetic oscillations and topological effect ("form effect") is used in the generators developed by Yu.V.Tsyzan **Kanchzhen**. The combination of high electric potential and topological effect is used in the device made by A.I.Veinik and in the device described in the patent [27]. The combination of magnetic fields and high-frequency electromagnetic oscillations is used in W.Kroppa's patented generators. Rotating magnetic fields are used in V.M.Yurovitsky's patented generators.

The extremely unusual properties and possibilities demonstrated by **torsion** field generators allowed the development of new approaches to the interpretation of various phenomena, including ESP and PK. From the late 80s till the late 90s, major experimental investigations were conducted that confirmed the theoretical predictions. It was established that **torsion** generators allow us not only to replicate all "phenomena" demonstrated by so called "psychics," but they also are able to demonstrate effects that were never demonstrated by any "psychic".

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THE DIVINE COSMOS

David Wilcock

Chapter 9

Harnessing Torsion Waves & Consciousness

9.1 -- EVERY ATOM IS A TORSION GENERATOR

Kozyrev's work and others have shown us that all matter harnesses torsion waves to sustain its existence. In the last two chapters we saw that an atom is actually a vortex of aetheric energy, where the negatively-charged electron clouds are pressing in towards the positively-charged nucleus via the Biefeld-Brown effect. We also have seen that geometry is a major factor in the quantum realm, since it represents the natural form that vibration creates in a fluidlike medium. These naturally occurring aetheric vibrations will cause atoms that are released from a tiny nozzle to gather into perfectly geometric microclusters, which act as one large atom in their own right. These vibrations are also responsible for the formation of quasi-crystals, where a rapidly-cooled metallic alloy forms into a geometric structure that cannot be created by individual "particle" atoms, but only by those atoms blending together into a larger whole.

Again, the key is that these geometric forms are being created by vibration. In order for this vibration to occur, an atom must be constantly absorbing and radiating aetheric energy at the same time. As this vibration continues, the atom will throw off torsion waves into the surrounding aether. This means that every atom is a torsion generator, and depending on its overall "spin polarization," i.e. whether there is a greater amount of right-handed or left-handed spin in its electron clouds, the object will either generate left-handed or right-handed torsion waves. Larger "bulk" groupings of atoms into common physical objects would obviously follow the same rules.

So, let's say that you have an object whose atoms are more heavily polarized for right-handed spin as opposed to left-handed spin. Now, let's move back to our analogy of a sponge that is submerged in water. The vibrations at work will cause the sponge to be continually expanding and contracting in size at a very fast speed. If the sponge is a perfect sphere, then the sponge will be throwing off an equal amount of water in all directions at a steady flow rate. However, if the sponge were shaped into a cone, then each time that the sponge contracts, a greater amount of water will shoot out of the top of the cone as opposed to the other areas. This is easily visualized with the analogy of seeing water passing through a funnel. In the case of this analogy, the top of the cone would be releasing right-handed torsion waves.

Thus, since every atom is throwing off torsion waves as it vibrates, certain shapes can help harness and direct this torsional energy flow more than others. Obviously, any of the Platonic Solids would be in this category, but other shapes can harness torsion waves without necessarily being Platonic Solids. Dr. Victor Grebennikov discovered such phenomena in the "cavity structural effect" or CSE, through his study of insects. In this chapter, we shall also discuss Dr.

Golod, Dr. Krasnoholovets, Joe Parr and others' surprising research on the power of the pyramid shape to harness torsional energy.

9.2 -- MAJOR CATEGORIES OF TORSION GENERATING DEVICES

As described in Nasonov's groundbreaking torsion studies, there are four major categories of devices that will produce a measurable torsion-field effect:

1. Objects with specially organized spin polarization. A magnet is the most common material that fits into this first category. Every atom has a combination of "right" spin and "left" spin in the electron clouds, and this is known as the "spin polarization" of the atom. Any bulk object will have an overall spin polarization, which is the sum of all the different spins in the atoms comprising it. In a magnet, all molecules are aligned in north-south magnetic polarization, and this creates strong torsion waves as well as a magnetic field. Czech researcher Pavilta was able to produce similar effects in non-magnetic materials, as documented in *Psychic Discoveries*.
2. Electromagnetic or electrostatic torsion generators. By simply generating an electrostatic or electromagnetic field, such as by passing electric current through a coil of wire, you will also produce measurable torsion waves. Generators using this principle have been created and tested by S.V. Avramenko, G.F. Ignatjev, G.A. Sergejev, S.N. Tarakhtiy and many others.
3. Objects with specially organized rotation. By rotating either magnetic or non-magnetic materials in certain specific patterns and speeds, torsion fields can be generated. In Russia, this method has been used by A.I. Veinik, K.N. Perebeinos, V.M. Yuritovsky, V.V. Bobyr and many others. Such generators have been well described in our previous volume, as many researchers have created "overunity" or free-energy devices using these principles to extract energy directly from the aether itself. Gravity-defying craft, such as the SEG device by Professor Searl, have also been created using this method.
4. Objects that distort the geometry of the physical vacuum. As Nasonov indicates, "Every object having a certain surface geometry will simultaneously generate left and right torsion fields of a certain configuration depending on the geometry of the object. This fact can be detected by various types of physical, chemical and biological indicators. Unusual effects demonstrated by pyramids, cones, cylinders, flat triangles, etc. were repeatedly observed by many researchers in different countries." This fourth category shall be the main topic of discussion in this chapter, and we shall refer to such specially-shaped objects as "passive torsion generators." These effects have been studied by A.I. Veinik, V.S. Grebennikov, Yu.V. Tszyan Kanchzhen, I.M. Shakhparonov, A.A. Beridze-Stakhovsky, A. Golod, V. Krasnoholovetz, Joe Parr and others.
5. Generators that combine characteristics of the previous four categories. Certain devices have been built that combine the geometric shape of an object or enclosure (#4) with other torsion-wave generating properties such as seen in numbers 1-3, producing remarkable results. These studies will also be discussed in this and later chapters, and have been performed by Yu.V. Tszyan Kanchzhen, V.P. Kaznacheev, Joe Parr and the authors of the 1979 French patent #2421531, among others.

9.3 -- CHANGES IN THE SPIN POLARIZATION OF AN ATOM ARE POSSIBLE

Before we go on, we should note here that the spin polarization of an atom is not necessarily fixed in either a right-handed or left-handed direction. The Institute of Material Research in Kiev, Ukraine performed a series of experiments where an object was exposed to torsion radiation created by the third process in the above list. They found that if the torsion radiation was strong enough, then the spin state of the atoms themselves could be changed. Later in this chapter we will see that these changes can eventually be substantial enough to alter the structure and appearance of a material, such as the color of granite and the sharpness of a razor blade.

Even more interestingly, the Institute of Material Research also determined that people with strong psychic abilities were also capable of creating identical changes in the spin polarization of various substances by the sheer focus of their consciousness. No other known technologies could create such changes in a physical object. This again suggests that consciousness and torsion-waves are actually one and the same --- and in the Russian and Ukrainian pyramid research of this chapter we will see more of the mounting evidence that points towards this conclusion.

9.4 -- AETHERIC ENERGY INTAKE POSSIBLY MOST IMPORTANT FOR HEALTH

In this chapter, we will also begin feeling the weight of evidence that suggests that aetheric energy intake is actually the most important ingredient in the health of an organism, and that conventional processes of respiration, ingestion and sunlight exposure are only part of the puzzle – perhaps important only to the degree that each process is capable of continually renewing our supply of aetheric energy. Certain “non-eating saints” profiled in *Autobiography of a Yogi* by Paramahansa Yogananda and other sources have arrived at the point where they sustain the health of their physical bodies directly from this energy source, without eating or drinking. (We absolutely do not advise our readers to attempt this, as it could be fatal.)

9.5 -- TORSION WAVES ARE “PHI” SPIRALS

Another point that should be mentioned early along in this chapter comes from the research into passive torsion generators and the cavity structural effect that was conducted by the A.E. Akimov group at the Physics Institute of the Ukraine Academy of Sciences and at Chernovitsky University. They were particularly interested in studying the effects that cones of different sizes would have upon various processes. From this research, it was determined that: The best passive torsion generators were formed by cones that were shaped into the “phi” ratio of 1 to 0.618. What this tells us is that torsion waves are indeed “phi” spirals, since a cone that duplicates this pattern will harness the waves most strongly.

9.6 -- GREBENNIKOV AND THE “CAVITY STRUCTURAL EFFECT”

Russian scientist Dr. Victor Grebennikov is an entomologist, meaning that he works especially with insects. He first discovered the “cavity structural effect” when he ended up working too late in the steppes of the Kamyshlovo valley and tried to fall asleep relatively near the edge of a cliff. Deep in the side of the cliff just beneath him were massive “bee cities” with multitudes of tunnels and chambers created by an incredible number of different hives that had all formed

within the same area. So many bees had made their homes there that the entire cliff face looked like a piece of Swiss cheese, and in places it was so porous that it almost looked like a sponge.

As Grebennikov tried to fall asleep above these gently humming, living bee cities, he started to experience very bizarre effects that were too powerful to ignore. First his body felt as if it were continually expanding and contracting in size, while also feeling as if it were in a state of free-fall. Then, as the effect intensified, he began to see flashes in front of his eyes that would continue to appear whether his eyes were open or closed. His mouth suddenly had a strong metallic taste as if he had pressed his tongue onto the contact plates of a nine-volt battery, and he also experienced a loud ringing in his ears and an enhanced awareness of his heartbeat. When he moved as little as five feet away from this particular spot, all the effects would cease, but when he returned to the spot the effects would come back.

For many years he wondered why he had experienced these effects without producing any solid explanation. Then, one day he had a wide container filled with spongy clay lumps from the original nest site sitting out on his desk. These lumps had honeycomb-style cavities inside them where the larvae had grown into adult bees. As he passed his hand above these porous fragments, he felt a sudden sensation of warmth emanating from them. When he touched the clay itself with his hand, it was cold, but this warm sensation was clearly noticeable above the clumps. Grebennikov also noticed a slight jerking or “ticking” sensation in his fingers from the clumps as well as the warmth. When he leaned over and put his head above the clay lumps, he again experienced all of the same bizarre symptoms as he had at the original site in the Kamyshlovo valley, including a sense of nausea.

Figure 9.1 – Clay Lumps from Kamyshlovo Valley bee nests

Grebennikov soon discovered that even if the container was covered with a thick metallic lid, the effects would still continue. He then took the container of clay honeycomb lumps to various institutes within the Agricultural Academy in Novosibirsk, where they were tested with thermometers, ultrasound detectors, magnetometers, electrometers and the like. None of these instruments responded to the nests in any unusual fashion. Precise chemical analyses of the clay showed no anomalies, and a radiometer showed no effect either. However, as Grebennikov indicated, "...ordinary human hands, and not only mine, would distinctly feel either warmth or cold, or a tingle, or sometimes a thicker, stickier environment. Some people's hands felt heavier, others felt lighter as if pushed up. Some people's fingers and arm muscles got numb, some felt giddy and developed profuse salivatio".

Later, Grebennikov discovered that artificial honeycombs created from plastic, paper, metal and wood could create the same effects, if the basic structure of the bee nests were adhered to. As he wrote in his book, "It turned out that the cause of all those unusual sensations was not a biological field, but the size, shape, quantity and arrangement of cavities formed by and in any solid object. And as before, the organism felt it, while the instruments remained silent. I called the discovery the Cavity Structures Effect (CSE)..." Then, Grebennikov goes on to explain some of the biological effects that were noticed from the Cavity Structure Effect: "Nature has continued to reveal to me its innermost secrets one after another. It has turned out that the CSE zone inhibits the growth of saprophytic soil bacteria, inhibits the growth of yeast and other

similar cultures as well as it inhibits wheat grain germination. The behavior of microscopic agile chlamydozoospores also changes in this effective zone. Leaf cutting bee larvae begin to phosphoresce [glow with light], while adult bees are much more active in this field and finish pollination two weeks earlier than they would otherwise. It has turned out that this CSE, same as gravitation, can't be shielded."

We shall see that although the insect-based Cavity Structural Effect inhibits the growth of bacteria, yeast, wheat grains and the like, the pyramid-related experiments show an opposite effect. This shows how the cavity structural effect seems to absorb torsion-wave energy away from most biological systems, whereas the concentrated energy inside of a pyramid will enhance them.

In this next excerpt on the CSE, think back to Kozyrev's discoveries that were discussed in the first chapter. Torsion fields are certainly capable of moving through solid matter without losing any of their strength. Furthermore, here again we see the "phantom" effect or "polarization of the vacuum" that Kozyrev and others observed: [The CSE field] affects living organisms through walls, thick metal and any other screens. It has turned out that if a porous object were moved, a person would not feel the change in CSE location immediately, but a few seconds or minutes later. While the old location would retain a "trace," or as I called it a "phantom" of the CSE field perceivable by the hand for hours and sometimes for months thereafter. In this next passage we find additional support for the concept of "nested spheres" of energy, which in this case are formed by the cavity structural effect:

"It has turned out that the CSE field did not decrease evenly with distance, but surrounded the honeycomb with a system of invisible, yet sometimes clearly perceivable "shells." Grebennikov goes on to remind us that we are constantly surrounded by these effects, and that we therefore have an innate ability to adapt to such changes in our environment so that we are not bothered by them: It has turned out that animals (white mice) and humans entering the zone of the CSE field (even a very strong one) would soon adapt to it. It couldn't be otherwise. We are surrounded everywhere by cavities, large and small, surrounded by grids and cells of living and dead plants (as well as our own cells.) We are surrounded by bubbles of foam rubber, foam plastic, foam concrete, rooms, corridors, halls, roofing, spaces between machine parts, trees, furniture and buildings. The next point should again remind us of Kozyrev's findings, showing how the energy streaming into the Earth and the energy streaming away from the Sun have direct effects on this process: It has turned out that the CSE "ray" had a stronger impact on living organisms when it was directed away from the sun and also downwards, facing the Earth center. Next, we see where Grebennikov unknowingly replicated Kozyrev's findings that show that time itself can be sped up or slowed down in the presence of torsion-wave energy:

It has turned out that clocks, both mechanical and electronic, run inaccurately when placed in a strong CSE field. The CSE seems to have an effect on time too. All this is a manifestation of the will of matter, constantly moving and transforming and existing eternally. Grebennikov built detectors for torsion-wave energy that were relatively similar to Kozyrev's, albeit far less complex. The key to remember here again is that these spiraling waves do exert a subtle pressure on physical matter that is detectable with sensitive instruments: I have managed to devise instruments for an objective registration of the CSE, which react accurately to the proximity of

insect nests during all this time. Here they are in the drawings. They are sealed [glass] vessels with straws, burnt twigs or drawing coals suspended on spider web threads in them, with some water on the bottom countering the effects of static electricity, which hinders such experiments in dry air. If you point an old wasp nest, a bee honeycomb or a bunch of cereal ears at the upper end of the indicator, it turns slowly a few dozen degrees around. This is no miracle... Those who have doubts are welcome to visit the Agroecology Museum near Novosibirsk and see it all for themselves...

Figure 9.2 – Grebennikov's CSE detectors in action.

This next citation gives remarkable evidence for the ability of a bumble bee to feel the CSE from its hive even through a half-meter thick brick wall: "I've had reports of highly unpleasant effects of a few wasp nests in an attic. Besides that, most multiple cell devices and objects with a manifested CSE field have a far from beneficial effect on humans in the first few minutes. Honey bee combs are a rare exception. I have often observed the bumblebees living in our Isilkul flat in the 1960s. A young bumble bee did not take the trouble to remember the entrance to the hive and it would spend hours wandering around the windows of our house and of a similar looking house nearby on its first trip out of the hive. It would give up on its poor visual memory in the evening and it would land on the brick wall precisely outside the hive and would try to break right through the wall. Now how did the insect know that its home nest was right there, four meters away from the entrance to the attic and a meter and a half below, behind the thick, half meter wall? I was lost at the time in conjectures but now I know exactly why the bumble bee behaved in that manner. Now let us remember the experiment in which hunter wasps returned not only to a given location but even to an entirely different location where the lump of soil with their nest had been moved. I do not doubt that they were able to find it because of the wave emitter created by their nest cavities. In this next passage, Grebennikov demonstrates how certain flowers have a shape that creates a resonant structure for torsion waves to be generated, thus attracting the bees for pollination. Again, we see mention of the "phantom effect" or "polarization of the vacuum" when Grebennikov discusses how he was able to find these flowers in a completely dark room using a stem, charcoal rod or short pencil: There was yet another mystery to be revealed to me by my insect friends. It has turned out that flowers also use similarly powerful and unstoppable wave emitters besides their color, odor and nectar in order to attract their pollinators. I have discovered it with a drawing charcoal, a burnt twig by passing it over large, bell shaped flowers (tulips, lilies, amaryllises, mallows or pumpkins). I could feel "braking" of this detector already at quite a distance from the flower.

Figure 9.3 – Detection of CSE fields from bell-shaped flowers.

I have learned to find a flower in a dark room standing one or two meters away from it with this detector, but only if it had not been moved. If it were moved, I would detect a "false target", the "ghost" field left in its old location, the residual "phantom" I have already mentioned. I do not possess any super sensory abilities, and any person would be able to do the same after some training. One could use a 10 cm long piece of a yellow sorghum stem instead of a charcoal rod, or a short pencil whose rear end should be facing the flower. Some people would be able to feel the flower (a "warm", "cold", or "shivering" sensation emanating from it) with their bare hands, tongues, or even faces. As many experiments demonstrated, children and adolescents are

particularly sensitive to these waves of matter. In this next passage, Grebennikov describes how this system appears to be designed to keep bee nests from blending into each other, as well as to keep roots from growing into the nests: "When it comes to the bees, which nest underground, their "knowledge" of the CSE is vital to them. First of all, it enables the builder of a new gallery to stay away from the neighboring nests. Otherwise, the entire bee city all cut through with intersecting holes would simply collapse. Secondly, plant roots cannot be allowed to grow down into the galleries and honeycombs and indeed the roots stop growing any further a few centimeters away from the honeycomb of tunnels and chambers and start growing aside, feeling that nests are near.

I have confirmed the latter conclusion by my many experiments on couching wheat seeds in a strong CSE field, as compared to the seeds germinating in the same climatic conditions but in the absence of the CSE field. Photographs and drawings show both the dying of roots in the experimental batch as well as their sharp deviation in a direction away from my artificial honeycomb. Therefore, the bees and the weeds back at the lake had made a pact long ago and they are another example of the highest ecological expediency of all being... Finally, our last passage in this chapter from Grebennikov shows how the torsion radiation caused anomalous electromagnetic effects, again reminding us of Kozyrev's earlier findings:

"I will only mention one more thing. My battery powered pocket calculator often malfunctioned in the CSE field. It either erred, or sometimes its display window failed to light up for hours. I used the field of a wasp nest combined with that of my two palms. None of these structures had any effect on their own. "

9.7 -- RUSSIAN AND UKRAINIAN PYRAMID RESEARCH

Grebennikov's discoveries with the "cavity structural effect" show that long, tubelike structures, especially if gathered in bundles, will harness torsion waves in a way that can be confusing and damaging to most forms of life. However, he also found that if such structures are placed above a person, such as in a specially-built chair that he designed, the added torsion energy that they draw up from the earth has beneficial health properties. Such devices can be built rather simply by gluing several large egg crates above each other at their mutually shared points and mounting them above a chair where a person will sit.

The beneficial health effects of a person being placed under a CSE generator can be duplicated and enhanced with the pyramid shape. Grebennikov did a certain degree of interesting research in this area, but until Dr. John DeSalvo of the Giza Pyramid Research Association published the Russian and Ukrainian pyramid research of A. Golod, V. Krasnoholovets and associates, the complete picture of how much progress had been made in these areas was not available online. This research comes from the Institute of Physics in Kiev, Ukraine, a basic institution of the National Academy of Sciences of Ukraine, which was one of the leading scientific centers in the former USSR and the premier military research association.

Two steep pyramids with 70-degree slope angles were constructed in Russia near Moscow, one at a height of 22 meters and another at a height of 44 meters [144 feet,] costing over a million dollars to build. Over the last 10 years, a total of 17 different pyramids have been built

altogether. In order for the pyramid effects to emerge, it was found that no metal could be used in the construction of these structures, thus modular fiberglass plastics were used instead. The pyramids were aligned to the North Star and built away from populated areas in the natural countryside. At the base of the 22-meter pyramid, the fiberglass wall was 36 centimeters thick, and at the base of the 44-meter pyramid the fiberglass wall was 70 centimeters thick. The 22-meter pyramid weighed a total of 25 tons and the 44-meter pyramid weighed a total of 55 tons. Several different teams from the Russian Academy of Sciences carried out all sorts of experiments in these pyramids, with surprising results. [These results are discussed in greater scientific detail in the article, referenced at the end of this chapter.]

9.7.1 -- STRENGTHENING OF ANTI-VIRAL MEDICINE

The first study cited in Dr. Krasnoholovets' summary paper is by Prof. S.M. Klimenko and D.N. Nosik, MD from the Ivanovskii R&D Institute of Virology within the Russian Academy of Medical Science. This study involved the drug venoglobulin, which is a naturally-occurring antiviral compound in human beings. When the drug was diluted into a concentration of 50 micrograms per milliliter and stored in the pyramid for a time, it then became approximately three times more effective at fighting viruses than it normally would.

9.7.2 -- STRENGTHENING OF HEALING BENEFITS OF GLUCOSE AND WATER

The team of Prof. A.G. Antonov from the Russian R&D Institute of Pediatrics, Obstetrics and Gynecology tested the effects of a solution of 40% glucose in distilled water after it had been stored in the pyramid. By administering only 1 milliliter of the glucose to 20 different prematurely born infant patients with compromised immune systems, their levels of health were seen to rapidly increase up to practically normal values. The researchers furthermore discovered that the glucose was not necessary, as the same effect could be produced by simply using 1 milliliter of ordinary water that had been stored in the pyramid.

9.7.3 -- INCREASED HEALING RESPONSE FOR ORGANISMS WITHIN PYRAMID

Another study was performed by Dr. N.B. Egorova at the Mechnikov R&D Institute within the Russian Academy of Medical Science. In this study, the torsion-wave harnessing capability of the pyramid was tested directly on living organisms placed inside. An experimental and a control group of white underbred mice weighing 12 to 14 grams were both tainted with strain 415 of the virus S.typhimurium in equal amounts over the course of one day. In smaller doses of contamination, the mice stored in the pyramid survived at a rate of 60% whereas only 7% survived in the control group. In larger doses of contamination, 30% of the mice in the pyramid survived as opposed to only 3% in the control group. In other experiments, mice were exposed to various carcinogens, and an experimental group drank water from the pyramid whereas the control group drank ordinary water. The mice drinking the pyramid water had significantly fewer tumors develop than the mice drinking the ordinary water.

9.7.4 -- CHANGES OF ELECTRICAL RESISTANCE OF MATERIALS IN PYRAMID

Prof. V.I. Kostikov and Dr. A.C. Katasonov from the R&D Institute “Graphite” within the Russian Academy of Sciences performed various studies on the changes in electrical resistance that can be induced by a pyramid structure. In one example, a pyrocarbon material was tested that normally had a resistance of 5 to 7 micro-ohms. After a one-day stay in the pyramid, the material became 200% more resistant to electric current, which is an abnormal effect for pyrocarbon. Irradiating the same material with $\sim 10^{19}$ neutrons per square meter would only change the resistance of the pyrocarbon by about 5% in comparison. Similarly, silicon semiconductors would have an exponential lowering of their electrical resistance, moving from 10^5 to 10^4 ohms per centimeter, and high-temperature superconducting materials would lose their superconductive properties after a one-day stay in the pyramid.

9.7.5 -- ROCKS FROM PYRAMID DISTRIBUTE ELECTRICAL CHARGES MORE EVENLY

A group of researchers from the All-Russian Electrotechnical Institute in Moscow conducted an experiment to demonstrate how pyramid-charged rocks could dissipate strong electric charges, rendering them less harmful. The setup involved a flat metallic plate that was zapped by positively-charged electric blasts at up to 1400 kilovolts in intervals between 250 and 2500 microseconds. The electric blasts were generated by a rod that was suspended 5 meters above the metallic plate. Each of these blasts will typically “discharge” and burn up a portion of the metallic plate, which is known as a “defeat,” and these defeats are logged and plotted.

Two identical systems of this type, and experimental and a control, were created. In the experimental system, seven 100-gram chunks of granite that had been stored inside the pyramid were then placed on the flat plate in a one-meter wide ring. The researchers discovered that there were five times more burn marks on the control plate as opposed to the experimental plate. Obviously, normal granite rocks would not produce such an effect – only those that have stayed in the pyramid. It seems that the rocks exposed to the torsion fields in the pyramid were much more capable of distributing the electrical charges. This appears to be due to the fact that the electron clouds of the atoms in the rocks became more uniformly spin-polarized in the pyramid, thus helping to absorb and spread out electrical charges more evenly.

9.7.6 -- A.A. GOLOD’S PYRAMID EXPERIMENTS

Five major categories of experiments, as follows, were performed by a team of researchers from the Scientific Manufacturing Union Gidrometpribor in Russia, directed by A.A. Golod.

9.7.6.1 -- WATER DOES NOT FREEZE IN THE PYRAMID UNLESS DISTURBED

In the first experiment, plastic bottles of distilled water were kept in the pyramid over the course of three winter months. During this time, the air temperature in the pyramid sank as low as -38°C , or -6°F . Thermometers inside the bottles revealed that the temperature of the water was the same as the below-freezing air temperatures surrounding them, yet the water remained in a liquid form and would not turn into ice! However, if the water in any of the bottles was shaken or bumped in any way, it would immediately start crystallizing and quickly turn into a block of ice. Golod and his associates have videotaped these results.

This first experiment obviously suggests that the presence of the torsion-wave energy was able to keep the water molecules from crystallizing into ice, yet a simple disruption in the harmonic stillness of the water would cause this equilibrium to disappear and ice would quickly form. One slight bump on the edge of the bottle would disrupt the even flow of the torsion radiation and allow the molecules to begin crystallizing.

This same experiment also showed that water would retain its purity indefinitely while within the pyramid.

9.7.6.2 -- VISIBLE RINGS FORM IN ROCKS SCATTERED INSIDE THE PYRAMID

In the second of Golod's experiments, chunks of granite and crystal were scattered along the floor of the pyramid for longer periods of time. A visible ring would appear evenly throughout the chunks, showing a clear change in the appearance of the stones when under the torsion-wave influence. Between the end of 1997 and the beginning of 1999, this result was able to be duplicated 40 different times in the same pyramid, with different rocks each time. Each ring would cover between 50 and 300 rocks, with a total weight from 20 to 200 kilograms. Golod et al. have gathered evidence to suggest that when the rings form most visibly, the amount of epidemics in the surrounding area will decrease.

9.7.6.3 -- A COLUMN OF "UNKNOWN ENERGY" APPEARS ABOVE THE PYRAMID

In the third of Golod's experiments, the Joint-stock company "R&D Institute TTR" conducted studies of the air above the pyramid with a Russian instrument similar to radar known as a "military locator." A column of "unknown energy" was detected at a width of 500 meters and a height of 2000 meters. Further studies confirmed that a larger circle of this energy surrounded the area above the pyramid in a 300-kilometer-wide range, with the highest concentration being directly above the vertical fulcrum of the pyramid. Golod's team calculated that if such an energy column were to be produced electromagnetically, it would require all the energy of the various power plants in Russia combined. Furthermore, less rigorous was the observation that after the pyramid's presence was established, an ozone hole that had existed over that area of Russia was seen to repair itself in only two months' time.

This column of unseen energy did have other immediate uses and effects as well. Electrical energy from the pyramid could be harnessed by a capacitor that was placed at the apex of the pyramid; the capacitor would spontaneously take on a charge. Furthermore, pieces of the capacitor assembly were seen to break away and rise into the air on the energetic column that the pyramid was producing. It was also discovered that people working near the top of the pyramid might start to experience dizziness and nausea, and need to be taken some distance away from the pyramid for these effects to subside.

9.7.6.4 -- OIL WELLS BECOME MORE PRODUCTIVE WITH PYRAMIDS ABOVE THEM

In Golod's fourth experiment, a series of pyramids were built over one of a number of oil wells. It was discovered that the viscosity of the oil under the pyramids decreased by 30%, while the

production rate accordingly increased by 30% compared to the surrounding wells. There was a decrease in the amount of unwanted materials in the oil, such as gums, pyrobitumen and paraffin. These results were confirmed by the Gubkin Moscow Academy of Oil and Gas.

9.7.6.5 -- AGRICULTURAL SEEDS INCREASE THEIR YIELD

In Golod's fifth experiment, agricultural seeds were kept in a pyramid for 1 to 5 days before being planted. More than 20 different seed varieties were planted across tens of thousands of hectares. In all cases, the seeds from the pyramid had a 20 to 100-percent increase in their yield; the plants did not get sick and they were not affected by droughts.

9.7.6.6 -- ADDITIONAL PYRAMID EFFECTS RELATED TO BIOLOGY AND HEALTH

Under less strenuous laboratory conditions, Golov's team determined the following:

- a. Poisons and other toxins become less destructive to living systems after even a short term of exposure in the pyramid.
- b. Radioactive materials held inside a pyramid would decay more rapidly than expected.
- c. Pathogenic viruses and bacteria become significantly less damaging to life after being held in the pyramid.
- d. Psychotropic drugs have less of an effect on people either staying inside a pyramid or within close range of a pyramid.
- e. Standard solutions such as glucose and iso-osmotic solution become effective for treating alcoholism and drug addiction after being placed in the pyramid. They can be administered either intravenously or outwardly.

9.7.7 -- PYRAMID STUDIES OF DR. YURI BOGDANOV

Dr. Yuri Bogdanov conducted pyramid studies on behalf of the Joint-stock Company, "Scientific and Technological Institute of Transcription, Translation and Replication" (TTR), in Kharkiv, Ukraine. In one experiment, a 12-meter pyramid was used to increase the productivity of wheat by 400% in the Ramenskoe settlement of Moscow. The following effects were also discovered:

- a. The half-life of radioactive carbon was altered
- b. The crystallization patterns of salts would change
- c. Concrete would change in its strength
- d. Crystals would exhibit different optical behaviorsIn the biological arena, rabbits and white rats exposed to the pyramid gained 200% more endurance and their blood gained a higher concentration of leukocytes, or white blood cells.

9.7.7.1 -- WATER PURIFICATION BY PYRAMID POWER

Dr. Bogdanov also built a complex of pyramids in a town near the Arkhangelsk region of Russia by order of the domestic administration there. In this case, strontium and heavy metals that had contaminated a well were able to be cleared by the effects of the pyramids, similar to how unwanted materials were filtered out of oil in the above example. In the town of Krasnogorskoe near Moscow, a pyramid was constructed that would reduce the amount of salt in water, again making it more drinkable.

In addition, Dr. Bogdanov performed many laboratory studies on medicinal preparations, fungi and so forth. In the city of Kiev, Dr. Bogdanov studied how matter interacts with different torsion-field patterns created by various pyramid shapes, and these investigations also studied how the consciousness of the person would affect these energy fields. These studies were performed by a torsion-wave detecting device that he named the “Tesev,” which allows its user to detect peculiar properties in a particular geological feature, energetic “breathing” activity in the Earth as well as the torsion effects of various buildings including pyramids. These results were discussed on the Conference on Problems of Harmonization of Mankind, held in Kiev, and were subsequently published.

9.7.8 -- INCREASED HARDNESS AND PURITY OF SYNTHESIZED CRYSTALS

The torsion-wave-focusing properties of the pyramid structure were seen to have a direct effect on how crystallization takes place. Diamonds that were synthesized within the pyramid turned out harder and purer than they would otherwise. Again, this suggests that the torsion-wave component is of central importance in the forming of chemical bonds to create a crystal.

9.7.9 -- DIMINISHED SEISMIC AND WEATHER ACTIVITY

Teams from the Russian National Academy of Sciences also studied the earthquake data from the areas surrounding the pyramids and compared it to earlier data before the pyramids were built. They discovered that the pyramids have the ability to dissipate the energetic buildup that would normally create sudden, violent earthquakes. Instead of seeing one large and powerful quake, several hundred tiny earthquakes are registered instead. Furthermore, the atmosphere surrounding the pyramid seems to be shielded from severe weather as well, causing an overall decrease in the amount of violent weather patterns. This gives a clear illustration of the usefulness of pyramids for balancing the aetheric energies streaming into a planet.

9.7.10 -- FOODS STORED IN PYRAMID INCREASE HUMAN COMPASSION

Another experiment was conducted where a quantity of salt and pepper was stored inside the pyramid. This salt and pepper was later removed and fed continually to about 5000 people in different jails in Russia. Amazingly, within a few months there was a dramatic improvement in their behavior, and most criminal behavior almost completely disappeared. This is one of the more important points, as it validates the idea that aetheric energy is “spiritual energy” and that as a person is exposed to higher intensities of it, there is a propensity for greater feelings of love and compassion for others.

9.7.11 -- LIGHT-PRODUCING EFFECTS AND RAZOR-BLADE SHARPENING

Dr. Krasnoholovets built a small and simple resonator to study these pyramid effects, which appears to have been a piece of cardboard or glass folded in half to form a small “roof” structure. Within this small resonator, a $\text{KIO}_3 \cdot \text{HIO}_3$ crystal experienced a greater clustering of hydrogen atoms in the crystal. Rare gases and the surface of metals were also seen to have a photoelectric effect while in the resonator, meaning that they were producing light. [This seems to explain why the large outdoor pyramids could not involve metal in their construction.] Furthermore, Dr. Krasnoholovets replicated Patrick Flanagan’s historic “pyramid power” experiments by studying the effects on a razor blade within this resonator. The blade was aligned east to west, perpendicular to the Earth’s magnetic field, while a piece of the edge was removed and stored away from the resonator. Under scanning electron microscope, the edge of the razor blade from the resonator was seen to take on a smoother, less angular form over time.

Figure 9.4 – Normal razor surface (a) and razor surface after resonator exposure (b) under 3000x magnification.

9.8 -- HYPERSPACE PHYSICS OF JOE PARR

Dr. John DeSalvo of the Giza Pyramid Research Association has also brought the pyramid research of Joe Parr to the world’s attention through his various media appearances such as on the Laura Lee Show and Jeff Rense. Joe Parr holds a law degree and also has over 40 years experience as an electronics engineer. Parr’s interest in pyramid research first came about from his meeting George Van Tassel, an early contactee, in the 1950s, who informed him about the “pyramid power” experiments of Pat Flanagan that had demonstrated the sharpening of razor blades in the pyramid structure. Other experiments showed that organic materials would naturally dehydrate without putrefying while inside a pyramidal structure. Even raw, unrefrigerated milk would keep from spoiling if properly positioned.

9.8.1 -- STATIONARY PYRAMID RESEARCH

Parr went on to begin studying pyramid-related phenomena, first by simply using stationary pyramids and taking measurements from them. These pyramids could be made of nothing more than four horizontal rods forming a base and four vertical rods forming the edges. He would then place sources of radio waves, magnetic fields, ion sources and radioactive sources inside the pyramids, and measure their strength outside the pyramids. From this study, he found that a spherical energy field surrounds any pyramid structure. The exact center of this orb corresponds to the Queen’s Chamber position in the Great Pyramid of Giza. Inside this “orb,” the strength of the electromagnetic or radioactive source that he placed inside will still be measured at its full potential, but areas outside the orb will have a 1 to 3 percent reduction in the amount of measurable energy.

9.8.2 -- VARIANCE WITH SOLAR, LUNAR AND OTHER CYCLES

After 13 years of studying this phenomenon, Parr found that a negative ion generator (air ionizer) would strengthen the orb, causing it to shield and hold in even more energy than before. Specific

sound frequencies such as 51.5 hertz could also be used to strengthen the orb. Over the course of 20 years of measurements, Parr determined that the strength of this energy orb varies with the common 11-year sunspot cycle, and the width of the orb expands and contracts with the phases of the moon. All of these observations again suggest that the spherical orb is a static torsion field that gathers around the pyramid, and is strengthened by absorbing dynamic torsion fields. These fields can be strengthened by the electrostatic energy in the ions or in the acoustic vibration of air, which also is a vibration of the aether. Solar and lunar activity also has a direct impact on the strength of dynamic torsion energy streaming into the earth.

9.8.3 -- IMPORTANCE OF “PHI” CYCLE OF TIME

Further analysis determined that the classic “phi” ratio was very important to these energy fields as well, again showing a clear connection to torsion fields. Parr found that a form of “virtual” clock would begin counting at the time that the pyramid was first set in a certain position. This means that once the pyramid was placed in a fixed spot, the orb surrounding the pyramid would gradually become stronger and stronger in its ability to contain the energy fields inside, and the rate of growth for the energy bubble was directly proportional to “phi”. At certain mathematically-defined points in this “phi” cycle, the bubble will expand and contract in size, outside of the effect caused by the moon. This suggests a slow, long-term harmonic “wobble” in the energy field, reverberating like a gong in synchrony with the phi-proportions of the instreaming torsion waves.

9.8.4 -- ENERGY FROM GALACTIC CENTER

Parr’s experiments were abruptly disturbed on December 4, 1979, when the spherical energy orbs around the pyramids started rapidly disappearing on all but one experiment for an unknown reason. This caused the electromagnetic and radioactive sources inside the pyramids to suddenly flow without interruption into the surrounding space. Years later, Parr was very surprised to find out that the stream of X-rays from the center of our galaxy had abruptly shut off that day, and the anomaly was widely noted by astronomers. Other pyramid-energy shutdown events documented by Parr also corresponded precisely with drop-offs in our galaxy’s X-ray emissions, though he was unaware of this connection at the time the measurements were made.

This is another valuable piece of data, as it shows us that the center of the galaxy is actually our primary source of instreaming torsion wave energy. In this case, the torsion waves appear to be propagating in tandem with the X-ray wavelengths of the electromagnetic energy spectrum. Even though the activity of the Sun can increase or decrease the strength of torsion waves coming into the Earth, without the input from the Galactic Center we will have much less energy available to us. This will prove to be a very important point that we will use to explain the importance of the Mayan Calendar end-date on Dec. 21, 2012.

About nine days after Dec. 4, 1979, the spherical energy fields started to return, yet all but one pyramid had lost the original energy strength of the orb, which had slowly accumulated over time according to the “virtual clock” of the phi radio. The only pyramid that did not lose its energy field throughout this entire time period was a pyramid that was rotating by a mere 5 degrees every 10 days. As Parr allowed this particular experiment to continue running, he found

that the strength of its energetic orb continued increasing, eventually surpassing all of his other stationary pyramids. As we now know, the slight rotation caused the pyramid to absorb a small but measurable amount of torsion waves that would otherwise be traveling straight down and / or straight up with the gravitational field.

9.8.5 -- IMPORTANCE OF ROTATION IN ENERGY-SHIELDING EFFECT

So, only the rotating pyramid survived the galaxy-induced “blackout” of December 4, 1979, and somehow the rotation caused it to eventually harness more energy than all the others. This was Parr’s first realization that rotating the pyramids could dramatically enhance the strength of energy that they were absorbing and radiating, as Russian scientists such as Kozyrev had already discovered. For several years he tinkered with various designs to rotate pyramids, and he also found out that he could strengthen their energy fields even further by passing them through alternating magnetic fields as they rotated. This allowed him to reach levels much higher than the 1 to 3 percent shielding for a stationary pyramid. As he reached these higher levels, he also noticed that there would be a reduction in the weight of objects inside the pyramid as well; gravity was also being shielded.

9.8.6 -- “PINCH-OFF” AND HYPERSPACE

Over this time, he calculated that when he could get the pyramids to reach a certain speed while also bathing the surrounding air with atomic particles such as ions, there would be a “pinch-off” where the shielding would reach 100 percent. At this point the pyramid’s energy field would completely shield off all electromagnetic, radioactive and gravitational energy. Rotation alone could create a 50% shielding effect when the proper speed was attained, and the atomic particles were required to reach the 100% pinch-off point. Sunlight could also be used as the source of atomic particles to achieve complete shielding in the energy orb.

Obviously, this fits in with our previously stated ideas about objects displacing into higher levels of aetheric density, drawing from the concepts of Dr. Vladimir Ginzburg, Dr. A.M. Mishin and Dr. Harold Aspden. Indeed, it appears that an object will gradually displace into a higher aetheric density as it vibrates closer to the speed of light. Eventually, a complete shift can be made into the higher density at that point, and when the pressure is later released, the object will naturally shift back down into our own density. This also correlates with the patent of David Hudson, where microcluster iridium was seen to disappear when it was heated up to 850° Celsius, but would reappear when the temperature was reduced.

Therefore, it shouldn’t surprise us that once the 100% shielding level was attained in Parr’s experiments, the pyramid would temporarily disappear from our known “three-space” reality. At these times, the pyramids would disconnect from their epoxy mountings on the rotating arm, which was calculated to require 2000 pounds of force, or a sudden increase in kinetic (movement) energy that was 113,000 times greater than before. In 55 different experiments of this type, the pyramid would pass through solid objects such as the wall of the machine, which formed an enclosed shell that surrounded the path of the pyramid’s rotation. When the pyramid would re-emerge into our own space after passing through the solid casing of the machine, it

would be traveling at a tremendous speed like a bullet and often end up embedding itself into the wall of his laboratory or exploding.

9.8.7 -- SETUP OF EXPERIMENT

Now that we have established that this very anomalous effect would occur, it is good for us to have a better understanding of how this machine was actually constructed. In Parr's setup, a 5-inch thick, 3-foot diameter circular chamber houses a blade that rotates in a propeller-like fashion. The wood blade is 3 inches wide by 1/8-inch thick and swings in a 25-inch diameter circle. At both ends of the arm, two small one-inch base pyramids weighing eight grams each and made of ABS plastic are attached. The points of the pyramid are horizontally aligned with the base, pointing away from the center of the arm. The centrifuge is driven by a 12-volt DC ¼ horsepower motor in the 700-2400 rpm range. As the pyramids rotate, they pass through 36 pairs of magnets arranged in a giant circle, each pair attached just over one inch above and below the path of the pyramids on the ends of the rotating arm. The magnetic pairs alternate between north and south polarity, causing a continuing fluctuation in the fields that the pyramids were exposed to.

As we said, Parr determined that under sufficiently energetic conditions, the interior of the 1-inch wide plastic pyramids would start to shield all known energy fields, whether gravitational, electromagnetic or radioactive. The area inside the bubble surrounding the pyramids would lose weight. Radioactive materials, radio frequency sources and magnetic sources placed inside the small pyramids would be shielded from the outside. When pinch-off is achieved, the pyramids would either self-destruct or travel through solid objects, as indicated. This would also have the effect of causing extensive damage to the rotating arm and the entire inside of the machine.

9.8.8 -- ENERGY STREAM BETWEEN SUN AND ORION'S BELT

Parr found that this sudden increase of energy leading to pinch-off would occur most reliably every year on Dec. 13-16, and his measurements were taken over a 13-year period. Eventually, Parr discovered that at this time, the Earth's orbital path was intersecting an imaginary line that could be drawn between the Sun and the belt stars of Orion. This led Parr to conclude that an active energy conduit of some sort exists between the Sun and the stars of Orion's belt. This also falls in line with our expectations related to torsion fields, as there will be streams of aetheric energy connecting all the stars together and flowing between them. The closer we are to a star, the stronger the stream will be, and in the case of Orion's belt we have three central stars in close proximity with four other close stars surrounding them in a giant "X" shape. Thus, the shape of the stars in the Orion constellation forms a passive torsion generator in its own right.

9.8.9 -- ACCELERATION TO AND FROM THE MOON

One of the most interesting findings of Joe Parr comes from his observations of which direction the pyramids would travel in once they achieved pinch-off. Under the following experimental conditions, we should assume that the moon is new, meaning that it is not giving off light. Parr found that if the rotating chamber for the pyramid was bathed with negative ions, it would accelerate away from the moon. However, if the chamber was filled with positive ions, the

pyramid would accelerate towards the moon. This fits in line with our quantum physics models, where in this case we would see the Earth as if it were a giant atom. A pyramid that is displaced into a higher aetheric density with negative ions will move towards the center of the earth, just as the negatively-charged electron clouds will press towards the center of the atom. Similarly, a pyramid charged with positive ions will accelerate away from the center of the earth, repelling against the negative charge.

9.9 -- STAN TENEN'S DISCOVERY OF GIZA PYRAMID AS RESONATOR

In a 2000 appearance on the Laura Lee Show, researcher Stan Tenen noted that the Great Pyramid of Giza is built in harmony with the molecular structure of its materials. The vast majority of blocks that make up the pyramid are limestone, which is primarily a calcium carbonate $[CaCO_3]$ crystal. The Great Pyramid was built with a 51 degree, 51 minute slope angle, and Tenen pointed out that the calcium carbonate molecule has an approximately 52-degree angle in its shape. This is known as a "cleavage angle" and means that when pure calcium carbonate crystals are split, they will tend to split along this 52-degree angle. Therefore, Tenen claims, the slope angle of the pyramid brings its entire shape into harmony with the molecules of the matter that makes it up. Tenen knows of no other structure on Earth that fits this pattern. Clearly, such a harmonic connection between "micro" and "macro" would only further enhance the pyramid's effects.

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www.abovetopsecret.com

Torsion Fields & Metaphysics/Parapsychology

by

Jonna

I was doing some physics reading and stumbled across something that would be of interest to this forum: a scientific explanation for metaphysics/parapsychology. I found it in relation to non-locality of the space time continuum. Hope you enjoy!

What is a Torsion Field? According to A. Akimov, these fields come in at least three types: E-fields, S-fields, and G-fields. The E, S, and G stand for Electric, Spin, and Gravity fields. The torsion field and its emanations are subtle energy fields. They are separate and distinct from classical Electric, Magnetic, and Gravity fields. Generators for these fields can be shielded against electro-magnetic fields and the **torsion** field still manifest itself through such shielding. **Torsion** fields can be generated, detected, switched on and off (such as for communication purposes), and are a distinct type of energy field heretofore not included in today's classical physics. **Torsion** field emanations can travel at velocities at least as high as 10⁹ times the speed of light. **Torsion** fields can interact with laser beams (change frequency); affect biological processes; are generated by melting or solidifying some materials; affect quartz crystals; affect some electronic components; can favorably change some beverages; and have been noted to affect gravity.

According to Akimov, **torsion** fields coupled with the standard electric, magnetic, and gravity fields should provide means for a unified field theory that will extend the realm of science to include the effects of consciousness. The concept of dowsing, for example, can now have a scientific basis for explanation of the phenomenon. If this suggestion by Akimov proves viable, then science has an opportunity to extend its borders more rapidly into the so-called psychic realms. That could be a multi-decade venture of considerable importance to the expansion of scientific knowledge.

A couple of issues ago, NEN began advertising "gravity-wave tapes" and a multi-channel "gravity-wave detector". You may question our motive. After reading some of the Russian literature about **torsion** fields, your editor became almost convinced that there was a similarity between the so-called gravity waves of Ramsay and Hodowanec and the **torsion** fields. If correct, then the Ramsay gravity-wave detector will be an excellent **torsion**-field measuring instrument. Therefore, we have obtained copies of professional papers from three groups of scientists working on **torsion** fields in Russia. All three of these **torsion**-field articles are published in volume2, no. 3-4 of the Journal of New Energy.

In Russia, several types of **torsion**-field generators have been patented and some are available to purchase.

www.twm.co.nz...

As a result Akimov et al. view the vacuum as a physical medium that can assume various polarization states. Given charge polarization, the vacuum is manifested as the electromagnetic field. Given matter- polarization, it is manifested as the gravitational field. And given spin-

polarization, the vacuum manifests as a spin- field. All fundamental fields known to physics correspond to specific vacuum polarization- states.

Thus the above "**torsion**- field theory of the physical vacuum" can claim that all objects, from quanta to galaxies, create vortices in the vacuum. The vortices created by particles and other material objects are information carriers, linking physical events quasi- instantaneously. The group- speed of these "**torsion**- waves" is of the order of 10^9 C — one billion times the speed of light. Since not just physical objects, also the neurons in our brain create and receive **torsion**- waves, not only particles are "informed" of each other's presence (as in the famous EPR experiments), also humans can be so informed: our brain, too, is a vacuum- based "**torsion**- field transceiver." This suggests a physical explanation not only of quantum non- locality, but also of telepathy, remote viewing, and the other telesomatic effects discussed above.

www.goertzel.org...

Spin waves in condensed matter are a current and well-studied topic in modern physics. However, there is a less-known backwater in this field: **Torsion** Fields, the quantum spin of empty space; the large-scale coherent effects of the spin of the particles in the virtual sea.

Initial work in this field was performed by Einstein and Cartan in the 1920's, now known as ECT (Einstein-Cartan-theory.) Currently there are rumors that spin waves have real physical consequences, and that useful technology can be based on such things. If "**torsion** fields" can be used for communication, they could explain such things as telepathy and PK. Most of the recent work has been done in Russia, but now and then interesting things appear in the US as well.

www.amasci.com...

Torsion fields and bioenergy healers

Russian research posits an approach for describing many, if not all, the biopositive and parapsychological phenomena related to bioenergy healing and conscious intention. This research has postulated and tested the existence of "**torsion** fields." Russian scientist Akimov and his team consider the quantum vacuum as a universal **torsion** wave carrying medium. The **torsion** field is said to fill all of space isotropically, including its matter component. It has a quantal structure that is unobservable in non-disturbed states. However, violations of vacuum symmetry and invariance create different, and in principle observable, states. These theorized "violations" and "invariances" may be what the energy practitioners are creating, which induces changes in the gamma radiation previously described.

The theory linking biopositive physiological effects of bioenergy therapies with radiation hormesis has been well described.^{4,5} Radiation hormesis is the concept of using small doses of ionizing radiation in a manner which has a beneficial affect on the body. In summary, whole body exposures of mammals to low-dose irradiation (doses <10 cGy/y; <10 rad/y) has been found to stimulate major physiologic parameters including reproduction, growth, muscular development, mental acuity, cell repair systems (DNA, RNA, membranes and shock proteins), and immune competence.^{12,13,14}

Similar biopositive effects have been noted following bioenergy healing therapies including reduced anxiety in hospitalized cardiovascular patients,¹⁵ chemotherapy oncology patients,¹⁶ and premature neonates.¹⁷ Other research has shown bioenergy therapies reduce tension headache pain¹⁷ and dramatically increase the rate of healing of dermal punch wounds.¹⁸ One pilot study demonstrated a decrease in the concentration of suppressor T-cells implying an increased immune response.¹⁹ A separate study showed significant changes in hemoglobin and hematocrit values after treatment.²⁰

Work by renowned Chinese scientist Dr. Shu-Zheng Liu of the MH Radiobiology Research Unit of Norman Bethune University demonstrates that in both human populations and animal studies low-dose radiation (LDR) stimulates the immunological responses.²¹ The up-regulation of immunity following LDR involves a series of cellular and molecular reactions as well as their systemic regulation. The results obtained by Lui and many others have compelled researchers to conclude that whole-body irradiation (WBI) with X- and gamma-rays in the dose range within 0.2 Gy has definite positive effect on the immune system which can be considered as beneficial to the organism.²²

Similar types of improved immune responses have been reported by the Russian scientists with the use of generated **torsion** fields. "In a laboratory of radiobiology of Perm University we have investigated the effect of static **torsion** field on mice. . . The experiments have shown that **torsion** field has immune-stimulating effect showing itself in the activation of both cellular and humoral parts of the immune system. Being 53.3% for the control mice, the content of rosette forming cells was a high as 71.0% ($p < .001$) for the mice subjected to the action of **torsion** radiation. Appreciable differences in the response of the humoral part of the immune system for the unexposed and exposed mice were also detected: the titer of antibodies being 8.33 for the former and 11.70 for the latter."¹¹

conscious intention (causing heightened electromagnetic fields in the surrounding the hands) -> alteration of the **torsion** field -> distortion of Vacuum/ZPF (radiation hormesis) -> restoration of substance equilibrium

www.journaloftheoretics.com...

Remote Viewing, Predictions & Military Applications

"Theoretical works appeared, confirming the reality of PSI-phenomena, the existence of so called **torsion** component in the right part of the gravitational equation by A. Einstein (19), and the construction of technical models of the **torsion** fields radiation generators is reported in some works (20, 2). All such publications and communications talk about the possibility to use the presented PSI-phenomena with the intent to attack as well as with the intent of the perfection of the defense of the government and its means of armament. . The following PSI phenomena of human being and animals are the object of the study: prediction of future, secret reading of the present and past time, hypnotical effects and zombieng, search and finding of indicated lost objects

The basic problems of the construction and areas of the use of psychotronic weapon result from those: construction and use of military PSI generators, collecting of intelligence (PSI-detectors), construction and use of battlefield PSI generators, construction and use of TSULIPs - centers for control of people and apparatus - basic system of communication: networks of telephone, radio and television broadcasting; system of **torsion** communication and radiation, i.e. networks of PSI effects, construction of bioautomats-robots

Building of models and analogs of PSI-abilities and phenomena - the task which is nowadays in the order of the day.

PSI weapon this is the "ray weapon" (powerful generators, radiating pencils of rays, serving as a striking factor) and ENERGO-INFORMATIONAL CURRENTS OF RADIATION ORGANIZED IN A SPECIAL WAY (coherently), of known as well as unknown physical nature.

To make the reader understand everything what will follow we will give some definitions and a short survey of the PSW problem.

The first level - this is the psychological problem. I would call it a MACRO-problem. This is the problem of the control of the state of the consciousness of human being and society and, consequently, depending from the consciousness - of the psychology of the behavior of human being as a person, group, socium. This is the problem of the use of internal biological mechanisms and laws controlling such or other psychological condition or behavior.

With respect to numerous manifestations of anomalous, unusual (for the classical psychology) or parapsychological phenomena as is the case of clairvoyance, extrasensory perception, telekinesis, phenomenal memory and out of the ordinary calculating abilities (the experiments by Messing, Kuna, Gorin) and other mysterious qualities of the psyche, the new direction of scientific research and technical design (construction of technical means of registration, measurement and influencing of the brain) came into being called PARAPSYCHOLOGY.

The second level - MICRO-problem. The designation of this problem as a PSI problem is derived from the use of mathematical apparatus, methods and means of measurement of the QUANTUM MECHANICS (QM) for the research on AP (anomalous phenomena) of the psyche.

The fundamental wave equation of QM, the equation by Schrodinger, contains the mathematical symbol of the greek letter PSI defining the wave function which describes the undulatory behavior of quantum mechanical object (ensemble). It is believed that the processes and the mechanisms of consciousness (thinking), the processes of subconsciousness (under the threshold processes), i.e. all psychic processes in the brain, are governed by quantum-mechanical laws. Aside from that a much more sophisticated scientific discipline came into being - scientific and technical

PSI-quantum mechanical discipline of the research and control of the mechanisms and laws of thinking and psyche at the MICRO-level -the level of elementary particles and physical vacuum (19).

So the two apparently opposed worlds or levels, MACRO world and MICRO world, enter the worlds of thinking, consciousness and psyche.

And a hell of a lot more at:

Nazis, Torsion Fields & Remote Viewing

During the last stages of World War II nazi scientists, directed by the SS, were looking for radical new sciences with which to defeat the allied powers. In the process the Germans first discovered **Torsion** fields, a new branch of field phenomena generated by spinning objects. The SS scientists found that spinning an impellor, which compresses air into an inwardly spiralling vortex, produces lift when spun above 20,000 RPM. In turn this appeared to ionise the air and was self sustaining. They also experimented with **torsion** fields to manipulate space/time.

This new science may have remained unexplored with Germany,s defeat but in 1995 the Tomsk Polytechnic in Siberia began studies in the field of spin **torsion** interaction. It must also be remembered that while the Nazis were conducting scientific research they did so with a thorough understanding of metaphysics.

When you spin an impellor above 20,000 RPM it produces a spinning electro-magnetic field from the ionisation of the air particles by centripetal motion; the Russians have done experiments with electro dynamic generators and the nazis experimented with spinning radioactive metallic fluids. The spinning electromagnetic field is, as it were, a warping of 5 dimensional space; so the **torsion** field itself can be thought of as a warping of 5th dimensional space.

Hal Puthof the NSA scientist who ran the Stanford Research Institute,s Remote Viewing program has been promoting the idea of zero point energy, the energy of the quantum vacuum which, if it can be tapped into, would provide limitless power. John Hutchinson, an eccentric Canadian inventor, has been using bizarre electronic equipment that has produced has produced levitation, telekinetic force, transmutations of metals and pyrotechnic phenomena.

This author concludes that **torsion** fields disturb the 5th dimensional plenum that provides energy for 4th dimensional manifestation; when rotated above 20,000 RPM this breaks the ground state energy for manifestation and causes:

Changes in the 4th dimensional space time continuum. This in turn can affect gravity, electromagnetism and the strong and weak nuclear force. May produce energy for use in the everyday world. Can affect the manifestation of 4th dimensional space.

In quantum mechanics the observer collapses the quantum wave function simply by observing the event; **torsion** field generators can raise this process from the microscopic to the macroscopic realm. If we think of a human beings physical body as being a 4th dimensional energy system, a trained Remote Viewer has developed a 5th dimensional energy body which, with the right protocols, can then interact with spin **torsion** fields; in effect acting on the 5th dimensional plenum to change 4th dimensional manifestations.

By this method every single semi-conductor in the arsenal of US weapons systems can be rendered completely useless by changing the quantum mechanical parameters of the electronics. This means that a single Russian Remote Influencer could render the entire US war machine to so much expensive scrap metal. US Remote Influencers are now routinely implanted and are thus disturbed or even driven mad in the presence of **torsion** fields; which means that the Russians will have few effective adversaries in this new form of warfare.

www.rialian.com...

Over the course of the 20th century, various investigations in different countries, representing a variety of professional interests, repeatedly reported the discovery of unusual phenomena that could not be explained in the framework of existing theories. Since these authors could not understand the physics of the observed phenomena, they were forced to give their own names to the fields, emanations and energies responsible for the creation of these phenomena.

For instance, N. A. Kozyrev's "Time Emanation", W. Reich's "O-Emanation" or "Orgone", M. R. Blondlot's "N-Emanation", I. M. Shakhparonov's "Mon-Emanation", A. G. Gurvich's "Mitogenetic Emanation", A. L. Chizhevsky's "Z-Emanation", A. I. Veinik's "Chronal field" and "M-field", A. A. Deev's "D-field", Yu. V. Tszyan Kanchzhen's "Biofield", H. Moriyama's "X-agent", V. V. Lensky's "Multipolar Energy", "Radiesthesiatic Emanations", "Shape Power", "Empty Waves", and "pseudomagnetism", H.A.Nieper's "gravity field energy", T.T.Brown's "electrogravitation", "fifth force", "antigravitation", and "free energy". This list can easily be continued...

www.rialian.com...

The spin field can be detected with orgone accumulators. I daresay that the orgone detection instrument which is shown on www.orgonelab.org... will be able to act as a spin field detector. This is due to my observations of interactions between the spin field and orgone accumulators. One night, quite by accident, I left an orgone "shooter" exposed to a spin field for some 3 hours. (I was experimenting to see if there was any interaction between the spin field and orgone.) I had noted, before I became distracted, that when the orgone "shooter" was exposed perpendicular to the spin field, that the orgone output, as registered by my perceptions of orgone, had increased multifold. (The orgone "shooter" is a tube through an orgone accumulator which causes the orgone energy collected by the accumulator, to be funneled out of one end of the tube.) When I returned, I turned the spin field generator off. To my surprise, the orgone shooter continued to produce its extraordinarily prodigious output for some 15 hours after the spin field was turned off! After that 15 hours, I observed another extraordinary phenomena: A black funnel appeared in space centered on the opposite end of the tube from which orgone had been prodigiously pouring. This funnel became larger and more dense with time. And a strange sensation arrived with the funnel. The black funnel persisted for about 15 minutes, then faded rapidly. I got the sense that the energy which had radiated out the one end of the tube, was being "neutralized" by this dark funnel effect. This seems to me to be an effect of the vacuum compensation mechanism.

The Spin Force

A Collection of Articles and Experiments

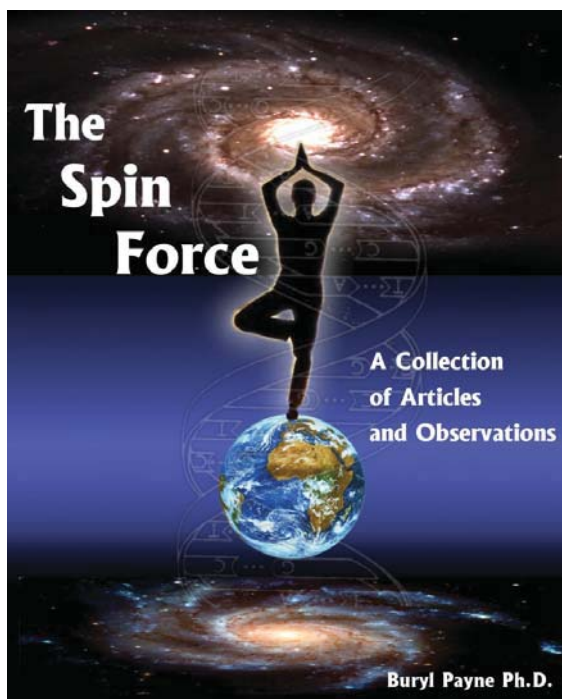
A book by Buryl Payne, Ph.D.

The concept of 'spin' is considered to be an intrinsic aspect of all sub atomic particles, atoms, and molecules. It also occurs around galaxies, stars, and planets.

I have discovered a spin force of a similar nature to be emanating from some organisms: humans, animals, and plants.

It may be present around all living organisms. ***It is not in the electromagnetic spectrum.*** It can be detected with a simple and inexpensive device called a 'Biofield Meter'.

In my book, *The Spin Force – A Collection of Articles and Experiments*, I describe how I came to discover this device and measure some of it's properties. I explain, in detail, how to make the apparatus and duplicate the experiments. I also report on the work of a Danish scientist who used such a device to harness electrical energy from this force. It is suggested that the spin may be a fundamental force, replacing magnetism as a special case.



This book is not in print yet. However, you may purchase it as an ebook (PDF format). **\$11**

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Read an article from the book. (PDF Format)

Edmund T. WHITTAKER Scalar Potential Functions

Mathematische Annalen 57: 333-356 (1903) ~

"On the Partial Differential Equations of Mathematical Physics"

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Proceedings of the London Mathematical Society, Series 2, Vol. 1 (No. 843): 367-372 (1904) ~

"On An Expression of the Electromagnetic Field Due to Electrons by Means of Two Scalar Potential Functions"

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Lloyd ZIRBES Flux-o-matic Motor [Gravity Generator]

Excerpts : Brian Desborough : "Why I Wrote "They Cast No Shadows"

"Sadly, I was only able to give passing recognition on page 72 to a great scientist whose name and scientific work should be as well known to every high school student as that of Einstein, yet has been totally ignored by the scientific community. He is the late Lloyd Zirbes, who was never able to have his twenty five years of research published; his harassment included the destruction of his laboratory by arson. Contemporary physics theories, including the work of Albert Einstein, have been built upon the laws of Newton, who in turn based his work on the writings of Galileo. According to academia, Galileo demonstrated that objects of equal mass but of different physical materials e.g. lead and feathers, fall at the same rate of acceleration in a vacuum. Lloyd Zirbes was astounded to discover that Galileo never made any tests on falling bodies, his claims were pure supposition. Zirbes accordingly conducted an experiment in which a **sphere of iron and a sphere of graphite of equal weight were simultaneously dropped down a two thousand feet mineshaft. At the bottom of the shaft, the final few feet of the fall was recorded by means of a high speed camera.**

"Amazingly, the graphite sphere, although considerably larger than the iron sphere because of its lower density, and therefore prone to more wind resistance, impacted when the iron sphere was still six feet from impact. A similar experiment using spheres of other metals revealed that the **iron sphere still impacted later than all the other spheres. Moreover, the spheres diverged considerably from each other prior to impact and also developed a specific rotation when falling.**

"So what? Only that the work of Galileo, Newton and later scientists was very badly flawed; Zirbes research suggested that the sun is not a gigantic fusion reactor as claimed by academia, but rather consists of thousands of individual bodies which release energy by means of the interaction between their respective gravity fields. In other words, the sun's energy production is by mechanical not nuclear means, something also claimed by that brilliant scientist and Sumerian scholar, Dr. George Merkl.

After twenty five years of research, Zirbes invented a device which created gravity. So successful was the first test that everything in the lab that was not bolted down, degravitated and flew around, severely injuring the hapless Zirbes in the process. While he was hospitalized, his laboratory, van and some of his research notes were destroyed in an arson fire.

Zirbes stated that there are only two fundamental forces in the universe: motion and gravity. I feel this statement should be modified to read that gravity is compressed, or folded magnetism. Magnetism appears to be the glue that holds the universe together, something which can be illustrated by studying the 525 HP Rory Johnson free energy motor, which now has been classified by the US government, in order to prevent its incorporation into the Greyhound Bus Company coaches.

Among the many things that could be achieved by the application of the Zirbes physics is the injection of contained gravity into any physical matter in order to rearrange the atomic structure, thus producing any desired element. Intelligence (audio and video) could be modulated onto a pulsed Zirbes gravity generator, thus broadcasting gravity.

Since the Zirbes research material has never been officially published, the reader may be wondering why I am familiar with it. One balmy night several years ago, I attended a garden party in Santa Barbara, California. Suddenly a stranger approached me from out of the gloom and said that he felt that he had to gatecrash the party to deliver a package to someone that he didn't know, and intuitively felt that the person was myself. When I looked at the thick file of papers later, I discovered that it was a copy of Lloyd Zirbes' research data.

<http://www.fdp.nu/zirbes/zirbes.asp>
Flying Dutchman Projects

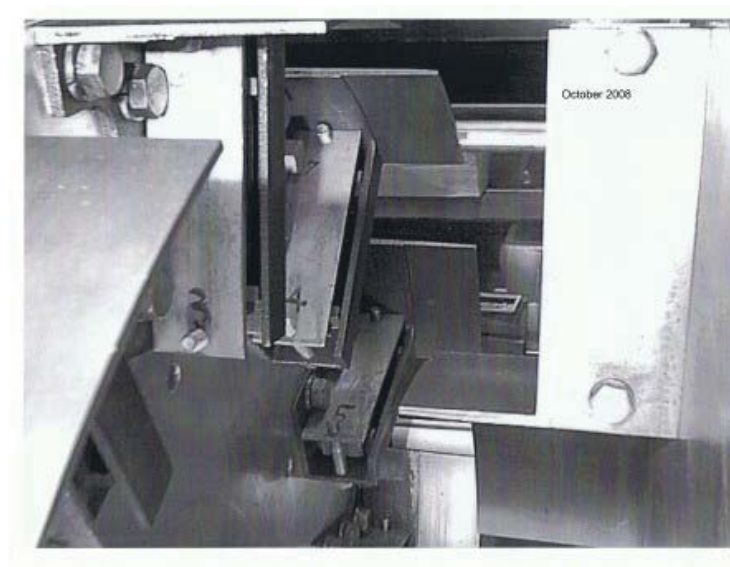
Lloyd B. Zirbes
Blueprints // Parts list // Assemblies

The late geomagnetic researcher Dr. Lloyd Zirbes discovered that Galileo's suppositions are

complete error. He proved that Newton's law of gravity is also an error. This puts the foundation of science and technology of our world on error and lies. You can't build a world on error, or it will fall. It is unfortunate that we are the "last generation" Mat.24:34 who will "witness" the END of the WORLD.

Zirbes strongly opposed the technology utilized in the HAARP system. He wrote, 'Disruption of the Earth's magnetic field will complete damages to the planet's balance done by the government nuclear bomb blasts in the natural radiation belts above the ionosphere. Earth's magnetic field keeps the planet in balance with the moon and sun. Disrupting the field will be the last straw in sending Earth into the sun or out into space.'

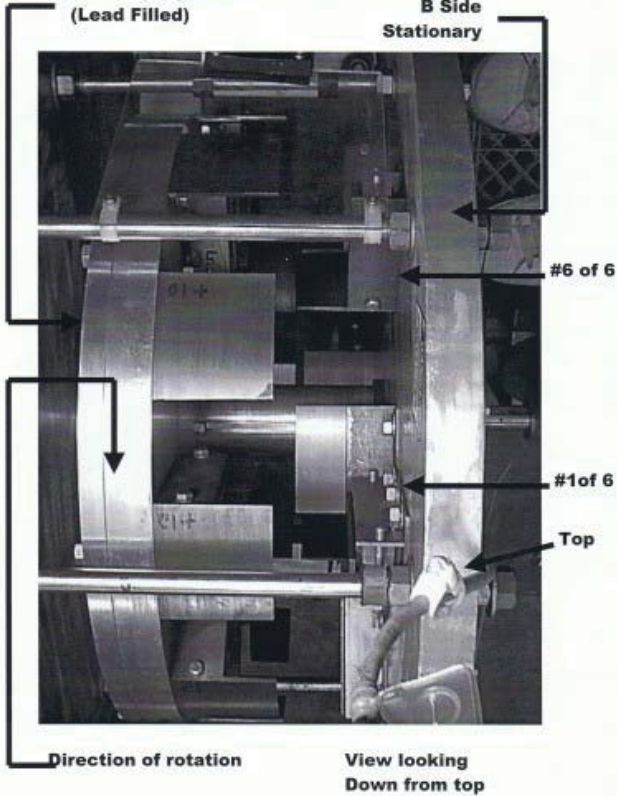
$G=MV^2$: Gravity = Mass times Velocity squared - Dr. Lloyd Zirbes.

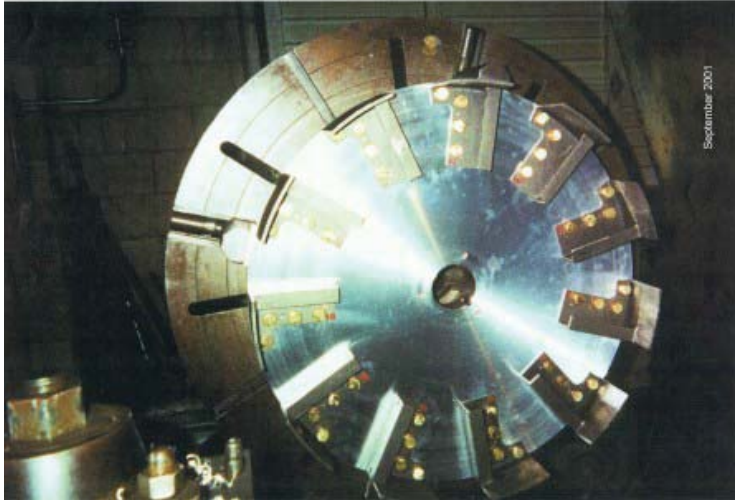


October 2001

A Side
Rotating Flywheel
(Lead Filled)

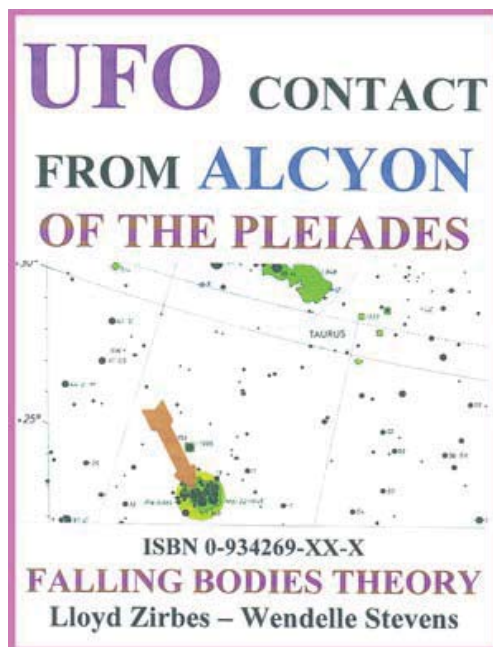
B Side
Stationary





<http://www.ufophotoarchives.org/2052.html>

"UFO Contact From Alcyon of the Pleiades," by Lloyd Zirbes and Wendelle C. Stevens.



A Minnesota farmer, checking his trap lines, is abducted on his way home at night, and taken aboard an alien vehicle, along with a neighboring family, who were already aboard. The farmer, Lloyd Zirbes, was shown on viewing screens the deficiencies in our understanding of physics, and also shown the forces behind all motion and creation. The "Falling Bodies Theory" demonstrated is so profound that Zirbes had to begin taking college-level physics courses in order to understand the Alcyon E.T.s' theories.

Zirbes has now become a professor of physics, and offers the alien's "Falling Bodies Theory" concepts to academia.

The Zirbes case is also notable in that it is another valid case of UFO Contact from the Pleiades star cluster, demonstrating again that the Pleiades is an area of our galaxy from where a number of ET contacts on Earth are originating.

Price: \$25.00

http://www.oxygenhealth.com/ed_on_lifeforce.html

G=MV²: Gravity = Mass times Velocity squared - Dr. Lloyd Zirbes.

The larger something is (the more mass it has) or the faster it spins, or both, then the more of a local gravity field it produces as it spins. Earth spinning and floating in space is an example. The huge mass of our planet is floating in the sun's gravity field, but our planetary rotation allows our planet to create its own "local" gravity field preventing us from crashing into the sun. The very bottom of a tornado (a type of vortex) is a smaller mass but so concentrating and rapidly spinning that it creates a counter flow of gravitons in outward radiation - it generates its own "local" field of gravitons. Each graviton is 1/80th the size of an electron. This field causes a local gravity field that temporarily cancels the surrounding Earth gravity. This is why houses and locomotives have been seen to float in the air next to tornados - the tornado's local gravity field temporarily cancels the Earth & Sun gravity fields because it's gravitons are more in number than the others in the area. Graviton movement flowing through substances while having a polarizing effect is also the ultimate source of all electricity and magnetism, but most scientists and engineers are not aware of this. Definitely not taught in school.

<http://fluxomaticmotor.wordpress.com/>

Interested Parties

August 9, 2009 by fluxomaticmotor

Your interest in the "Flux-O-Matic Motor" as an Alternative Energy Source is exciting to us.

Origin-

Early in 1990 I became the steward of seven sets of blueprints which were the draft and/or

design drawings for construction of the “Flux-O-Matic Motor”, an alternative energy source capable of creating, gathering, and generating electromagnetic energy through a self-sustaining static charge.

The Future-

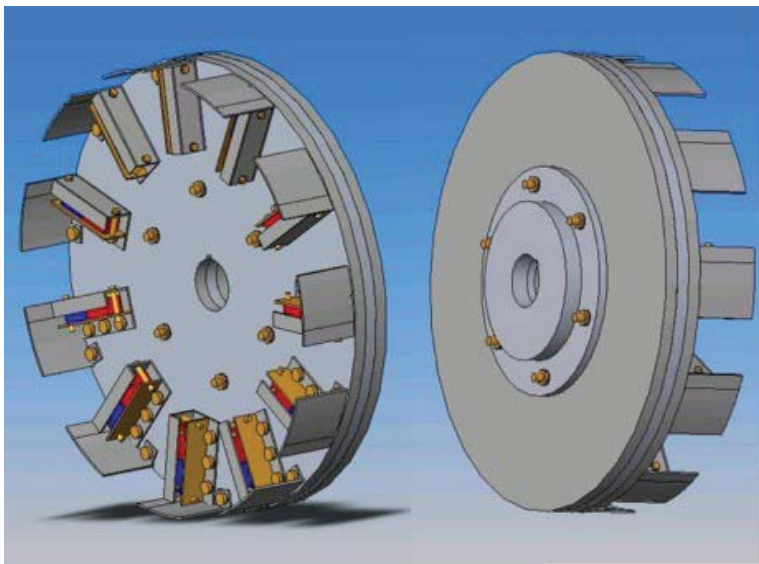
We are interested in developing a new partner who would be willing to enter into a partnership agreement with us. I look forward to providing you any further information you need.

Respectfully,

John Schilling

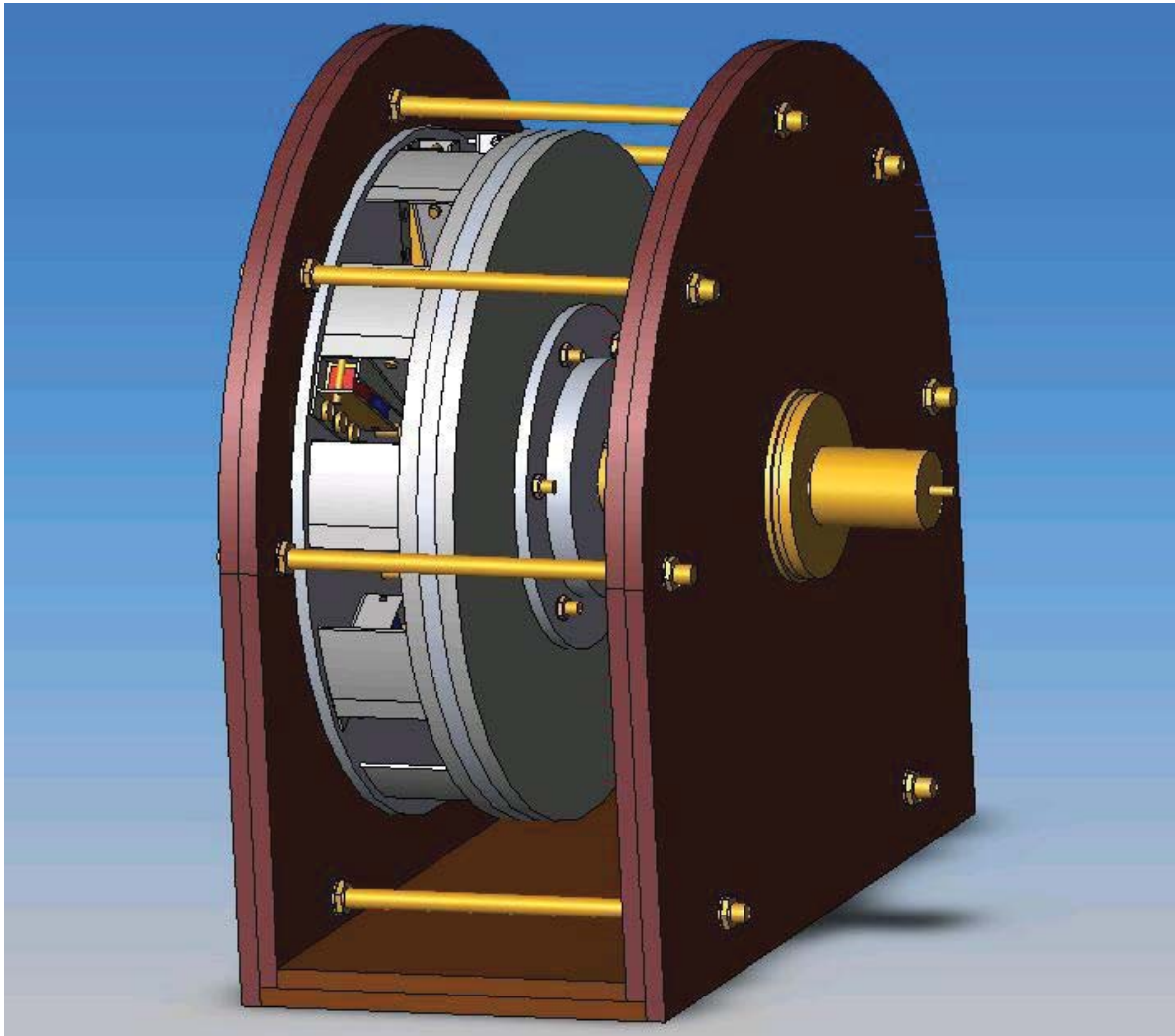
fluxomaticmotor@yahoo.com
661-675-8607

Flux-O-Matic Motor Diagrams & Photos

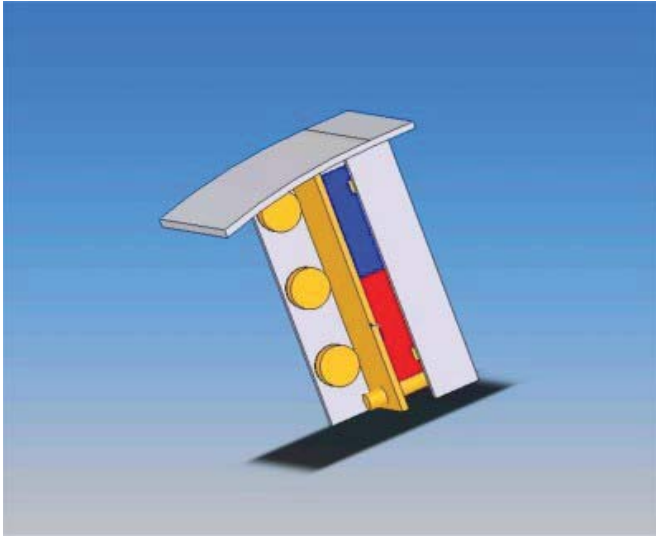


Assembly

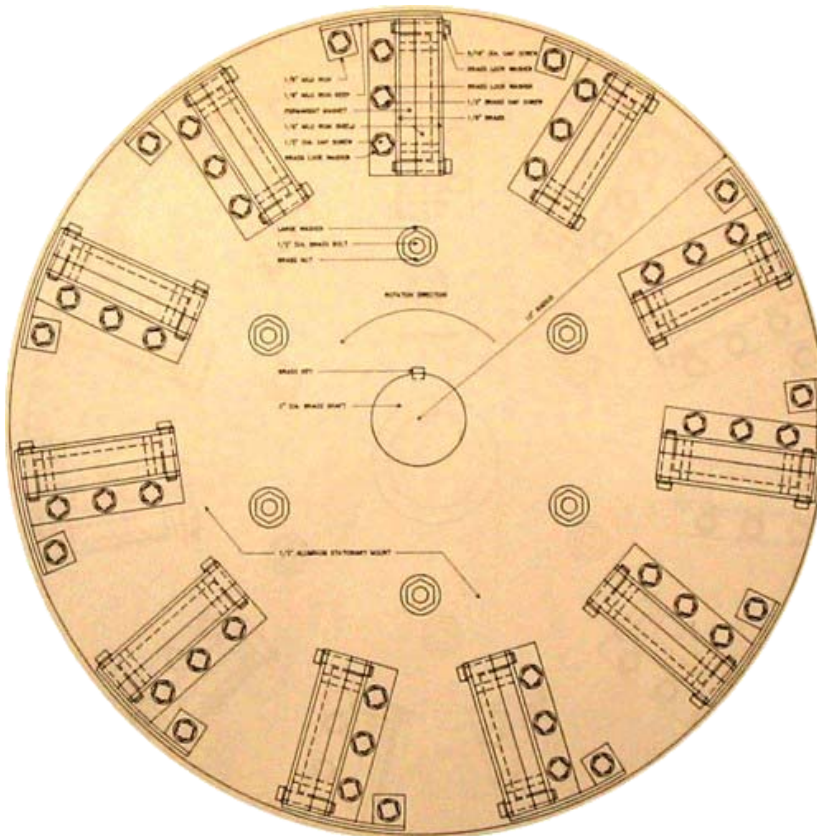
Complete Rotor



Complete Flux-o-matic



Energizer



Assembly

Diagram

Google Search Results --

Lloyd B. Zirbes

The late geomagnetic researcher Dr. Lloyd Zirbes discovered that Galileo's suppositions are complete error. He proved that Newton's law of gravity is also ...

www.fdp.nu/zirbes/zirbes.asp

Zirbes Flux-o-matic motor

Lloyd B. Zirbes · Blueprints · Parts list · Assemblies.

www.fdp.nu/zirbes/default.asp

Why I wrote the book "They Cast No Shadows"

File Format: PDF/Adobe Acrobat - Quick View

was a copy of Lloyd Zirbes' research data. The cover of my book depicts a reptilian wearing a red robe and sporting a gold mask. The creature is depicted ...

www.whale.to/b/whyiwroteshadows.pdf

Review:Book:Desborough:Blueprint For A Better World - PESWiki

Mar 31, 2007 ... The experiments of Lloyd Zirbes and his scientific team demonstrated that a rotating body expels extracted energy that forms a field which ...

Chapter Contents - Book Sources - Patents mentioned

peswiki.com/.../Review:Book:Desborough:Blueprint_For_A_Better_World

Order Books Direct - UFO Photo Archives

The farmer, Lloyd Zirbes, was shown on viewing screens the deficiencies in our understanding of physics, and also shown the forces behind all motion and ...

www.ufophotoarchives.org/2052.html

Lloyd Zirbes | MERLib.org

Feb 15, 2009 ... Lloyd Zirbes ... John Ernst Worrell Keely · LÃ¶ffgen · Lloyd Zirbes · Stephan Riess · Sympathetic Vibratory Physics · Thomas Townsend Brown ...

merlib.org/person/lloyd-zirbes

UFO Contactees

Jump to Zirbes, Lloyd?: The farmer, Lloyd Zirbes, was shown on viewing screens the deficiencies in our understanding of physics, and also shown ...

www.ufohypotheses.com/cont.htm

Lloyd Zirbes - G=MV2

Gravity = Mass times Velocity squared Upon being prompted in a dream, I've been researching Lloyd Zirbes, a great scientist whose name and ...

projectavalon.net/forum4/showthread.php?...Lloyd-Zirbes-G...

The official homepage of Wendelle C. Stevens, US Air Force Lt. Col ...

"UFO Contact From Alcyon of the Pleiades," by Lloyd Zirbes and Wendelle C. ... The farmer, Lloyd Zirbes, was shown on viewing screens the deficiencies in ...

www.ignaciodarnaude.com/.../Stevens,Contact%20Planet...Catalog-1.htm

Edmund T. WHITTAKER Scalar Potential Functions

Mathematische Annalen 57: 333-356 (1903) ~

"On the Partial Differential Equations of Mathematical Physics"

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Proceedings of the London Mathematical Society, Series 2, Vol. 1 (No. 843): 367-372 (1904) ~

**"On An Expression of the Electromagnetic Field Due to Electrons by Means of
Two Scalar Potential Functions"**

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BOOKS

